MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL RAILROAD AND FINANCIAL NEWSPAPER.

INDUSTRY: ENGLISH AND AMERICAN.

[London Iron and Coal Trades Review.]

How is the British manufacturer to manufacture on a large scale, or to keep his works fully employed? Consider his position for a moment. He can only rely on the necessarily limited amount of work that he secures in competition with all the world. He is never sure of a single contract, even in home markets. No orders can be accepted or executed that do not yield a profit. His orders are usually relatively small. He is so hampered by the conditions imposed by his customers or by the engineers who act for them that the work which he does secure costs him more to produce than it would cost an American who was in all other respects similarly placed. Uncertainty of regular employment often hinders him from keeping together such a good staff of permanent workmen as would otherwise be possible. If he is only able to keep his plant employed for three-quarters of the time he is probably well satisfied, whereas his American competitor is generally going all the time. If his enterprise led him to contemplate and provide for operations on a much larger scale he might, indeed, make larger profits in good times; but as the lean years on the whole exceed the fat years, he would probably, in the long run, be a loser by such a policy. And not the least of his many troubles is the greatly higher cost of transport, which takes away from him the advantages that ought to result from his unique geographical situation in being, generally speaking, near to a shipping port. Finally, he has to contend with political influences which are not provocative of energy and enterprise, and with labor problems that present much greater discouragement than are known in other countries. Not a session passes that does not witness a crop of bills introduced into Parliament which are designed to benefit labor at the expense of capital, or to make it harder for the capitalist who depends on manufacturing operations pure and simple to live, while trade-unionism sets its cloven hoof down on any attempt to bring up the efficiency of British labor, measured in terms of product, to that of other countries.

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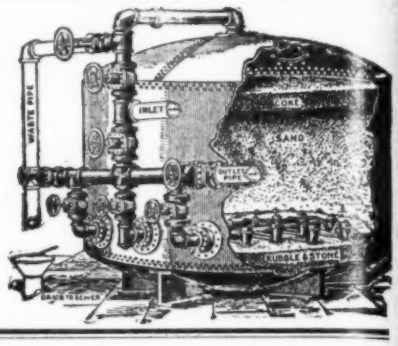

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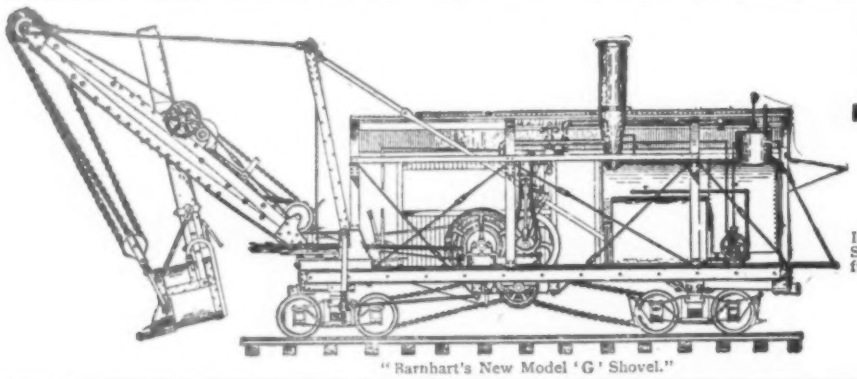

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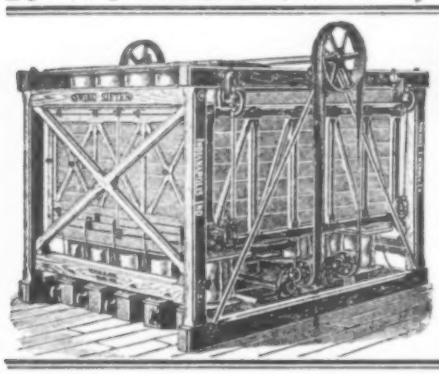

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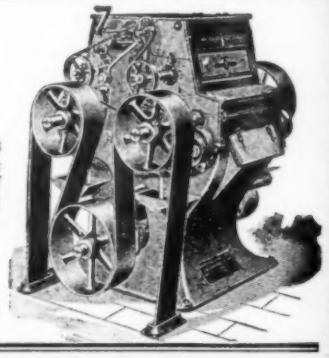

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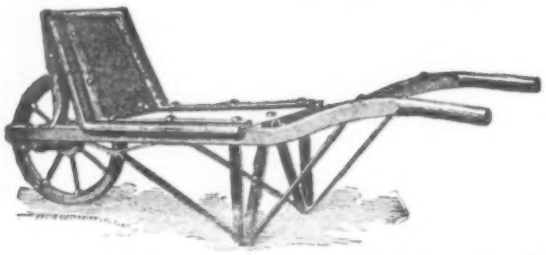

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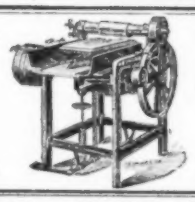

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Keasbey & Mattison Co., Ambler, Pa.
Southern Asbestos Mfg. Co., Richmond, Va.

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Hanlon, Thos. F., Washington, D. C.

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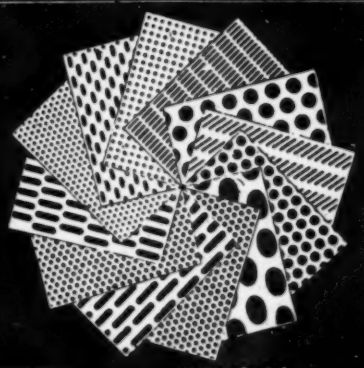

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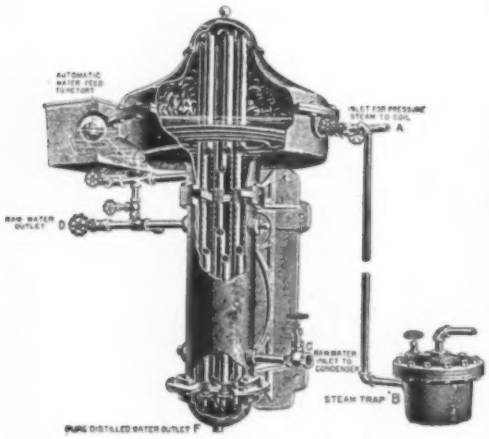

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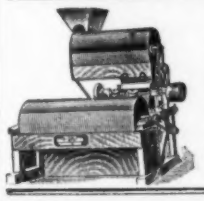
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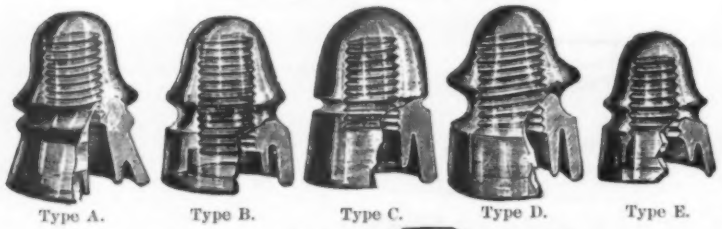

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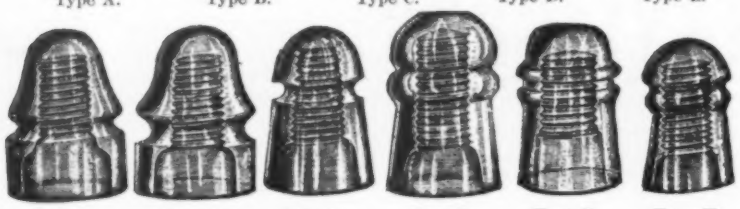

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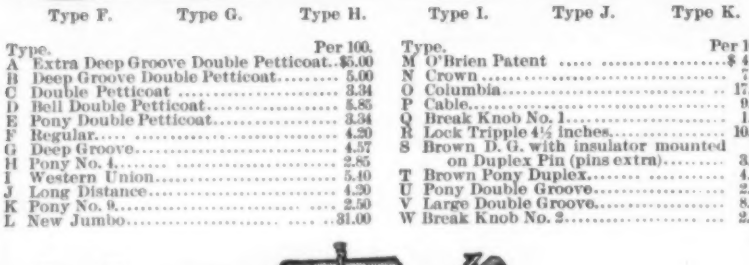

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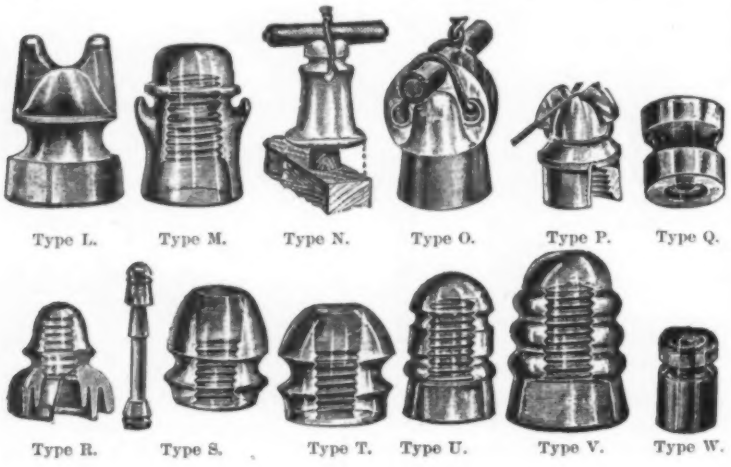

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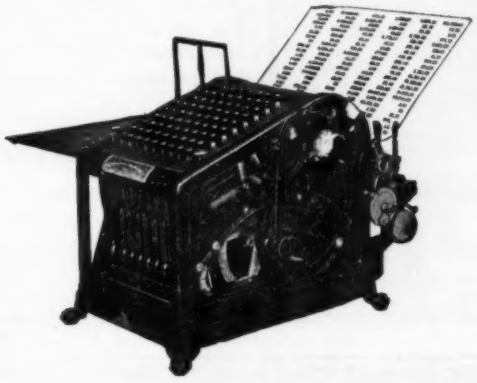

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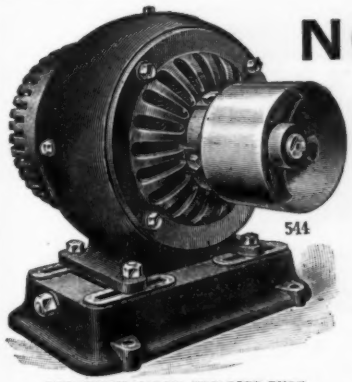

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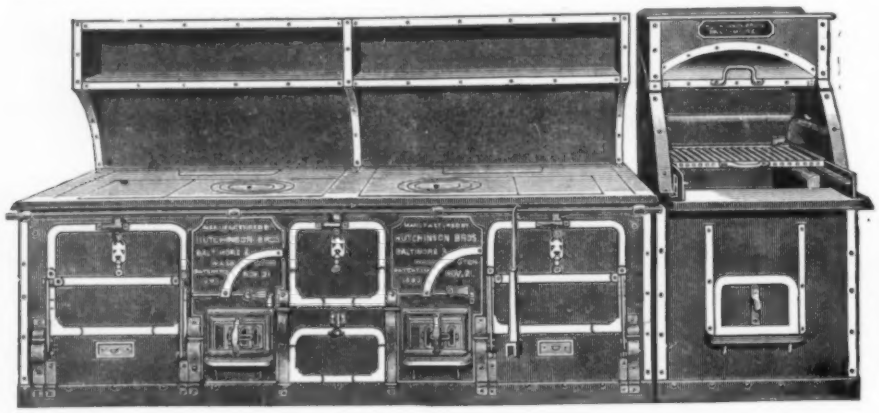

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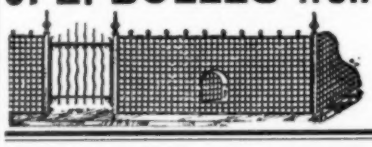

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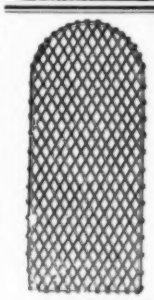

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Schaefer, W. J., & Co., New York, N. Y.

Milling Machines.
American Tool Works Co., Cincinnati, O.

Mineral Wool.
U. S. Mineral Wool Co., New York, N. Y.

Mine Locomotives. (See Locomotive B'ldrs.)

Mining Machinery. (Gold, Copper, etc.)
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McLanahan-Stone Machine Co., Hollidaysburg, Pa.
Mecklenburg Iron Works, Charlotte, N.C.
Northern Electric Manufacturing Co., Madison, O.
Rogers Boat, Gauge & Drill Works, The John M., Gloucester City, N. J.
Simpson Mfg. Co., Chicago, Ill.
Stanley Electric Manufacturing Co., Pittsfield, Mass.

Mining Screens. [See Screens.]

Mixing Machinery.
Alsing Co., J. R., Inc., Brooklyn, N. Y.
Aultman Co., The, Canton, O.
Dunning, W. D., Syracuse, N. Y.
Walker & Elliott, Wilmington, Del.

Mortar Colors.
Chattanooga Paint Co., Chattanooga, Tenn.
French, Saml. H., & Co., Philadelphia, Pa.

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Besley, Chas. H., & Co., Chicago, Ill.
Bonar, James & Co., Pittsburg, Pa.
Galena, Oil Co., Franklin, Pa.
Robinson, Wm. C., & Son, Baltimore, Md.

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Rockwell Engineering Co., New York, N. Y.

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Lunkenheimer Co., Cincinnati, O.

Oiling Systems. (Automatic.)
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North American Metaline Co., Long Island City, N.Y.

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Goodsell Packing Co., Chicago, Ill.
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Peerless Rubber Mfg. Co., New York, N. Y.
Rhoads, J. E., & Sons, Wilmington, Del.
Schaefer, W. J., & Co., New York, N. Y.
Textile Mill Supply Co., Charlotte, N. C.
Voorhees Rubber Mfg. Co., Jersey City, N. J.

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Bird & Co., J. A. & W., Boston, Mass.
Columbia Refining Co., New York, N. Y.
De Ronde, Co., Frank S., New York.
Fox, M. Ewing, & Co., New York, N. Y.
Muralo Co., New Brighton, Borough of Richmond, N. Y.
Muzzy Bros., Paterson, N. J.

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Armitage Mfg. Co., The, Richmond, Va.
Barrett Mfg. Co., Philadelphia, Pa.
Chattanooga Paint Co., Chattanooga, Tenn.
Colonial Paint & Varnish Co., Cleveland, O.
Detroit Graphite Mfg. Co., Detroit, Mich.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Eastern Granite Roofing Co., Jersey City, N. J.
French, Samuel H., & Co., Philadelphia, Pa.
Garfield Oil Co., Cleveland, O.
Holdt & Bullington, Atlanta, Ga.
Johns Mfg. Co., H. W., New York, N. Y.
Pinetown Paint & Chemical Co., Pinetown, N. C.
Standard Paint Co., New York, N. Y.

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Barrett Mfg. Co., Philadelphia, Pa.
Eastern Granite Roofing Co., Jersey City, N. J.
Garrett, C. S., & Son, Philadelphia, Pa.
National Roofing & Supply Co., Louisville, Ky.
Standard Paint Co., The, New York, N. Y.

Paper. (Sand Emery.)
Baeder, Adamson & Co., Philadelphia, Pa.

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Adams, J. M., Baltimore, Md.

Patterns. (Metal.)
Ryan, J. J., & Co., Chicago, Ill.

Paving Materials.
Charlotte Roofing & Paving Co., Charlotte, N. C.
National Roofing & Supply Co., Louisville, Ky.
Robinson Contracting Co., Geo. A., Mobile, Ala.
Warren-Ehret Co., Philadelphia, Pa.

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Allchison Perforated Metal Co., Robert, Chicago, Ill.
Besly, Chas. H., & Co., Chicago, Ill.
Harrington & King Perforating Co., Chicago, Ill.
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Bradley Pulverizer Co., Boston, Mass.
Cameron & Barkley Co., Charleston, S. C.
Cresson Co., Geo. V., New York, N. Y.
Foos Mfg. Co., Springfield, O.
Link-Belt Engineering Co., Philadelphia, Pa.
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Raymond Bros. Impact Pulverizer Co, Chicago, Ill.
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Valk & Murdoch Iron Works, Charleston, S. C.
Walker & Elliott, Wilmington, Del.
West Pulverizing Machine Co., New York, N. Y.

Phosphate Screens. [See Screens.]

Phosphor Bronze. (Wire, Rods, Sheets.)
Ryan, J. J., & Co., Chicago, Ill.
Phosphor Bronze Smelting Co., Ltd., Philadelphia, Pa.

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Alabama Con. Coal & Iron Co., Birmingham, Ala.

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New Orleans Wood Preserving Wks., New Orleans, La.

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Cresson Co., Geo. V., New York, N. Y.
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Glamorgan Pipe & Foundry Co., Lynchburg, Va.
U. S. Cast Iron Pipe & Foundry Co., Chattanooga, Tenn.
Wood, R. D., & Co., Philadelphia, Pa.

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Wolf Co., Fred. W., Chicago, Ill.

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Simmons, John, Co., New York, N. Y.

Pipe. (Lead.)
Robertson Mfg. Co., James, Baltimore, Md.

Pipe. (Straight Riveted.)
Sterling Blower & Pipe Mfg. Co., Hartford, Conn.

Pipe. (Spiral Riveted.)
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Pipe. (Sewer and Culvert.)
Pomona Terra Cotta Co., Pomona, N. C.
Stevens' Sons Co., H., Macon, Ga.
Warner Co., Chas., Wilmington, Del.

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Fairbanks Co., Baltimore, Md.
General Fire Extinguisher Co., Providence, R. I.

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Dart Mfg. Co., E. M., Providence, R. I.

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Columbus Machine Co., Columbus, O.
Saunders' Sons, D., Yonkers, N. Y.

Pipe Fittings.
Davis, The John Co., Chicago, Ill.
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Robertson Mfg. Co., James, Baltimore, Md.
Wolf Co., Fred. W., Chicago, Ill.

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Atlas Pipe Wrench Co., New York, N. Y.

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American Tool Works Co., Cincinnati, O.

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French, Samuel H., & Co., Philadelphia, Pa.

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Hanson & Van Winkle Co., Newark, N. J.

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Plumbago.
Dixon Crucible Co., Joseph, Jersey City, N. J.
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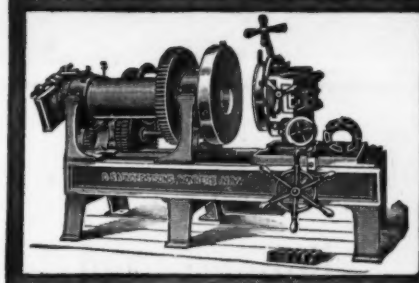

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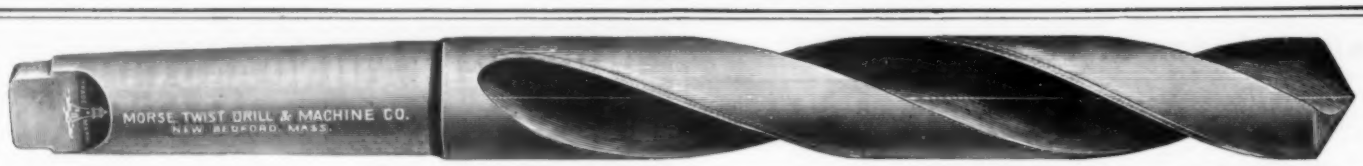

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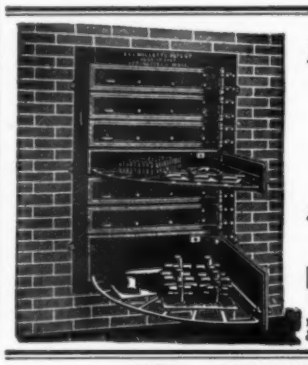

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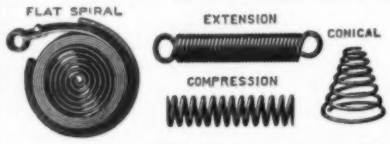

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Dehner-Wuepel Mill Building Co., St. Louis, Mo.
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Watson-Stillman Co., New York, N. Y.

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Wood's, T. B., Sons, Chambersburg, Pa

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Caldwell, H. W., & Son Co., Chicago, Ill.
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Egan Co., The, Cincinnati, O.
Fairbanks Co., Baltimore, Md.
Fairmount Machine Co., Philadelphia, Pa.
Fay, J. A., & Co., Cincinnati, O.
Finished Steel Co., The, Youngstown, O.
Golden's Foundry & Machine Co., Columbus, Ga.
Greenwald Co., I. & E., Cincinnati, O.
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Lane Mfg. Co., Montpelier, Vt.
Link-Belt Engineering Co., Philadelphia, Pa.
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Wickes Bros., Pittsburg, Pa.
Wolf Co., Chambersburg, Pa.
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Bacon Air Lift Co., New York, N. Y.
Ingersoll-Sergeant Drill Co., New York, N. Y.

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Erie Pump & Engine Co., Erie, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa
Wood & Co., R. D., Philadelphia, Pa.

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Cameron Steam Pump Works, A. S., New York, N. Y.
McGowan Co., John H., Cincinnati, O.
Park Mfg. Co., Charlotte N. C.
Watson, N. A., Erie, Pa.

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Cameron Steam Pump Works, A. S., New York, N. Y.
Cameron & Barkley Co., Charleston, S. C.
Cook Well Co., St. Louis, Mo.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
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Edson Manufacturing Co., Boston, Mass.
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Downie Pump Co., Downieville, Pa.
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Ingersoll-Sergeant Drill Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Rand Drill Co., New York, N. Y.
Sullivan Machinery Co., Chicago, Ill.

Rack Locomotives. (See Locomotive Blds.)

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American Locomotive Co., New York, N. Y.
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Southern Iron & Equipment Co., Atlanta, Ga.
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Steel Rail Supply Co., The, New York, N. Y.

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Mason Regulator Co., Boston, Mass.

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Austin Mfg. Co., F. C., Harvey, Ill.
Cresson Co., Geo. V., New York, N. Y.
N. J. Foundry & Machine Co., Plainfield, N. J.

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Merchant & Co., Philadelphia, Pa.
Scaife, Wm. B., & Son, Pittsburg, Pa.
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Cortright Metal Roofing Co., Philadelphia, Pa.
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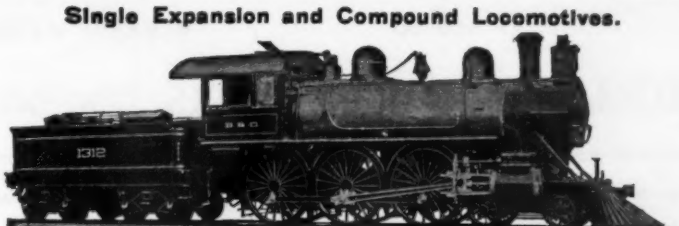

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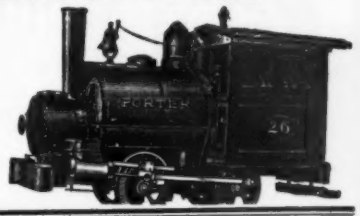

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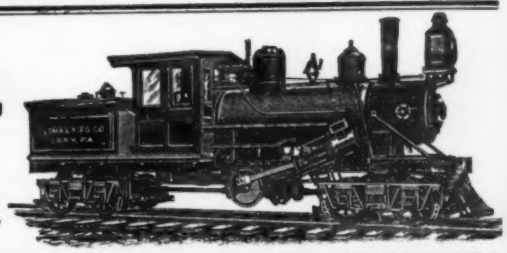

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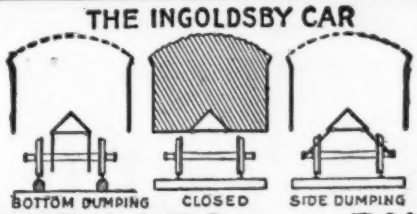

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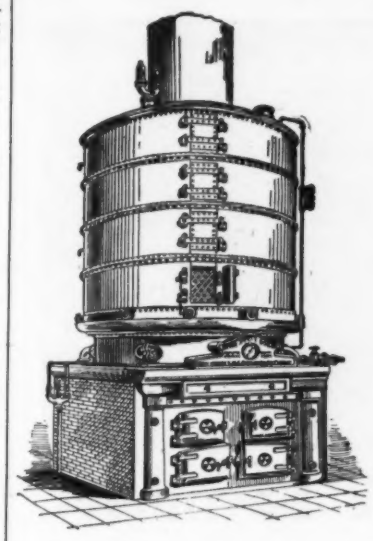

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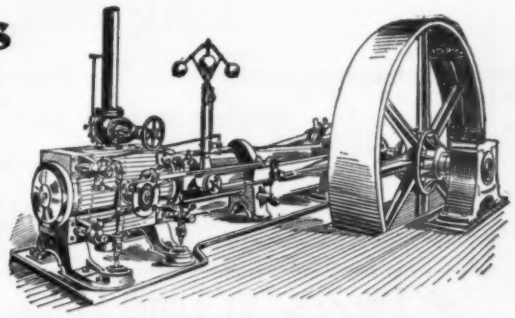

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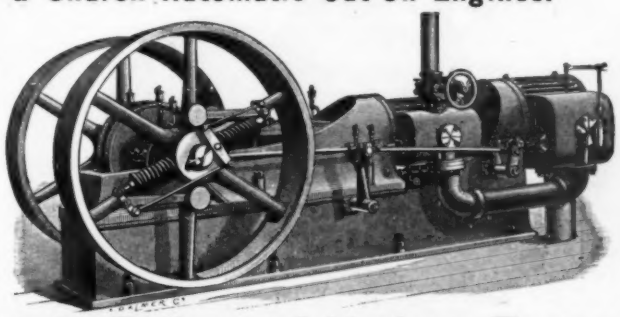

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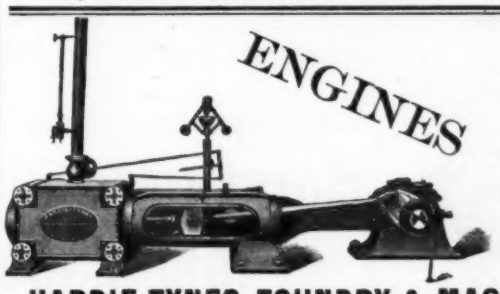

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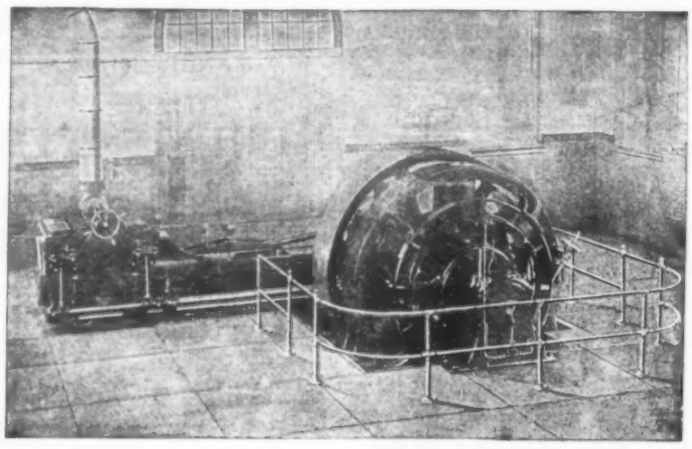

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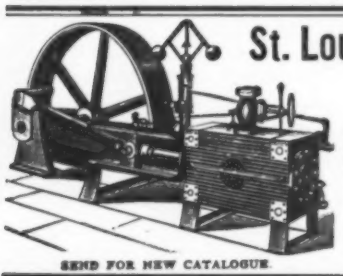

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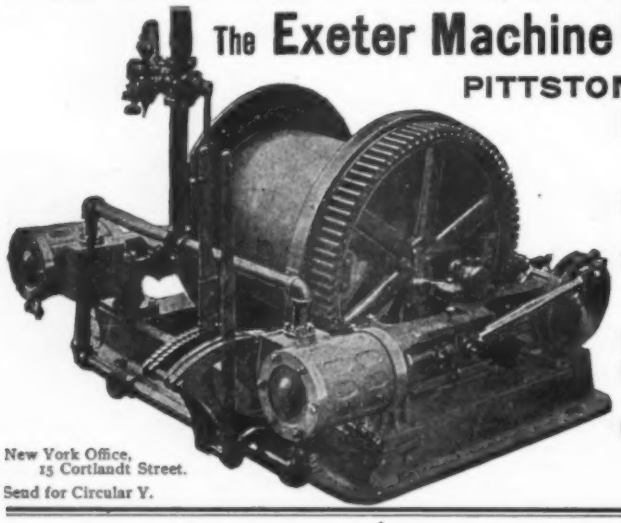

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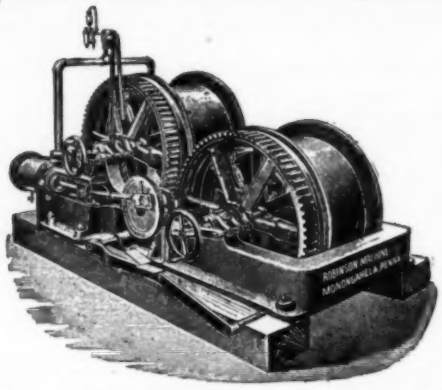

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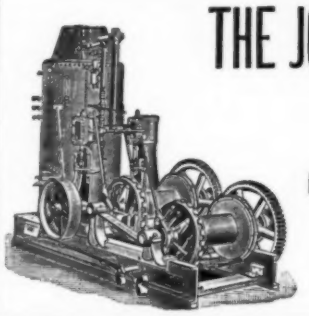

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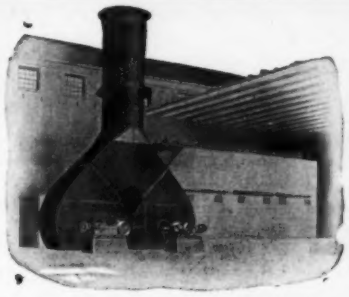

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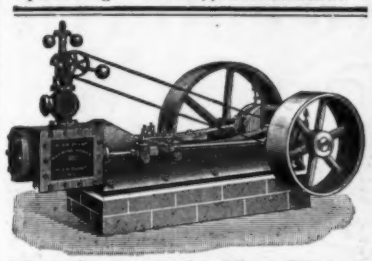

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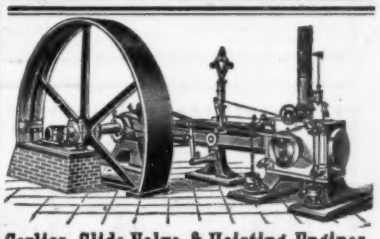

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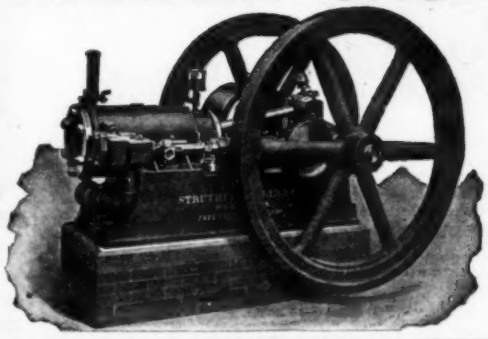

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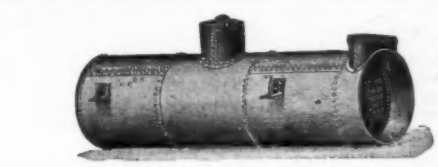

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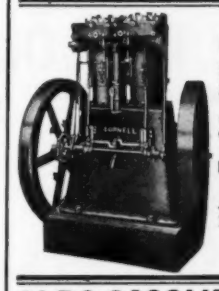

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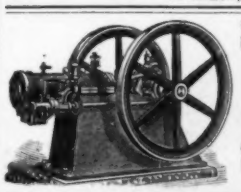

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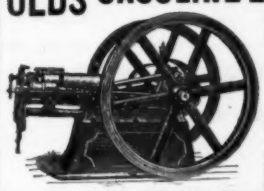

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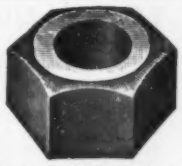

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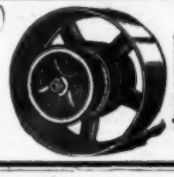

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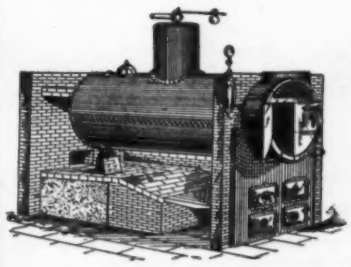

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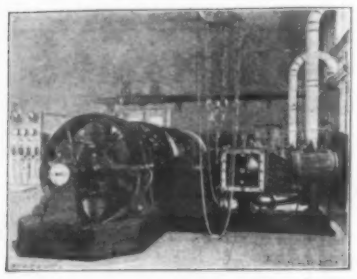

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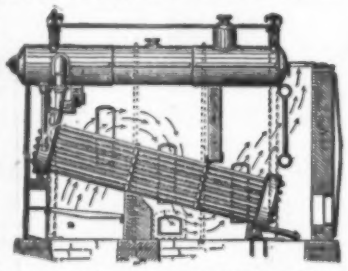

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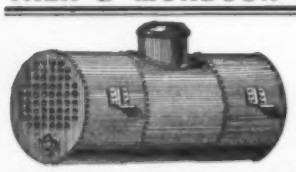

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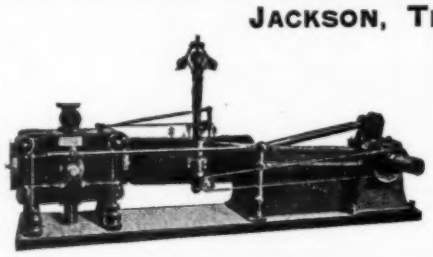

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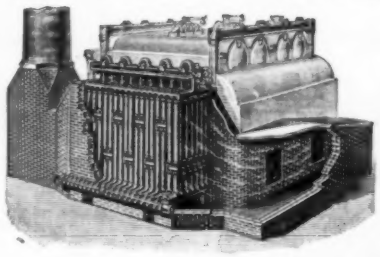

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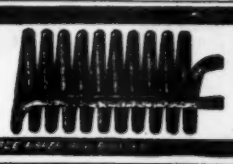

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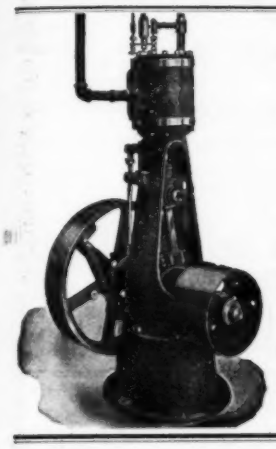

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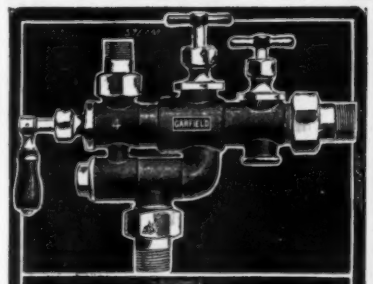

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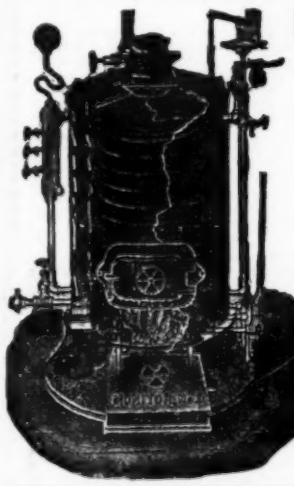

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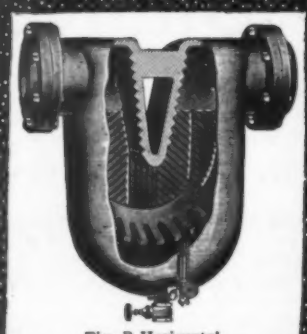

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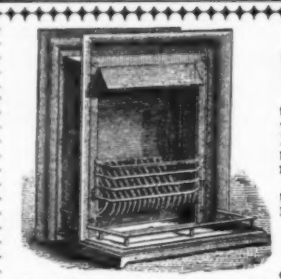

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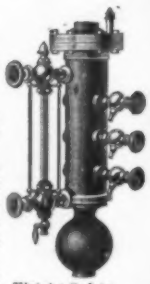

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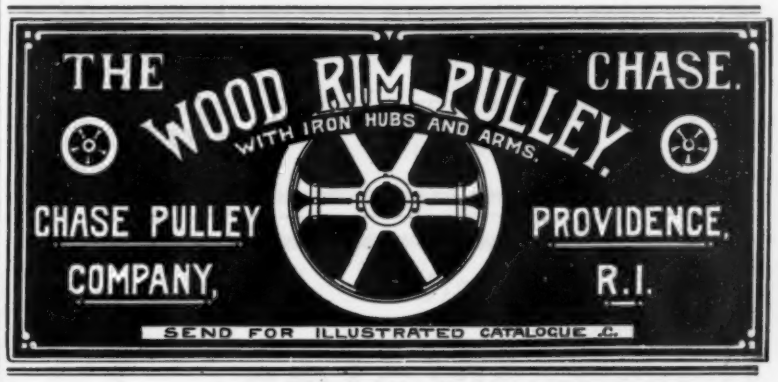

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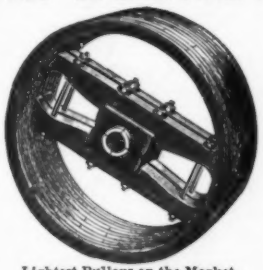

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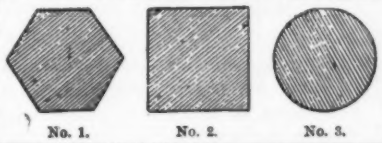

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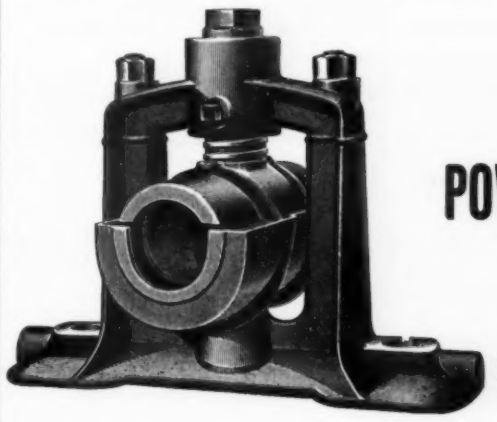

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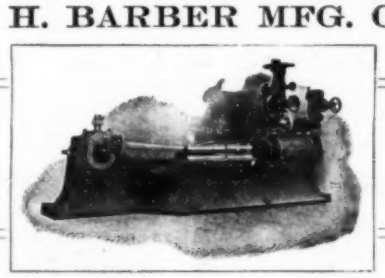

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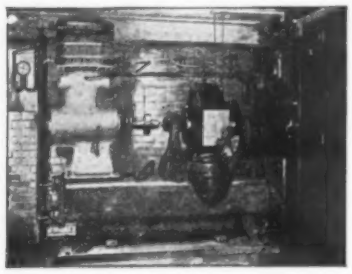

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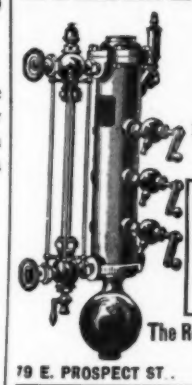

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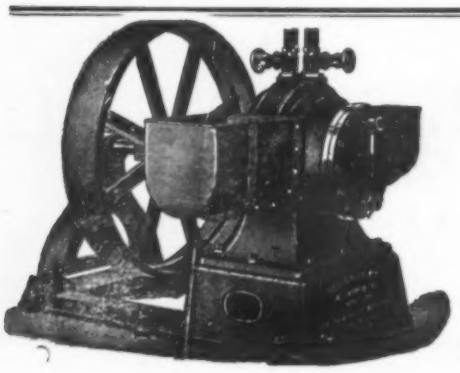

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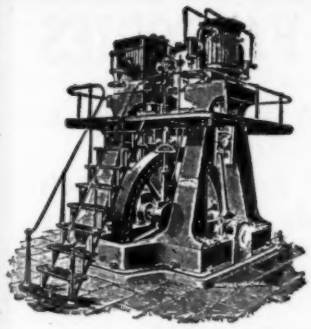

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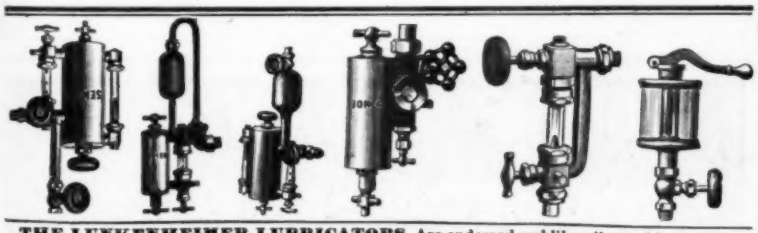

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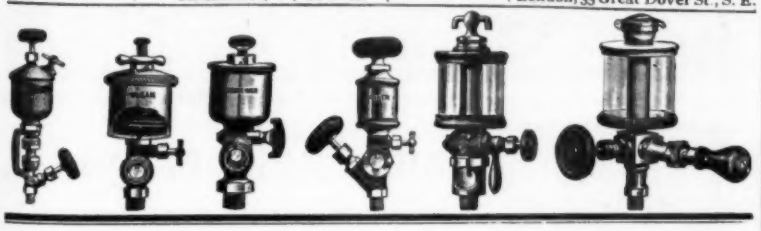

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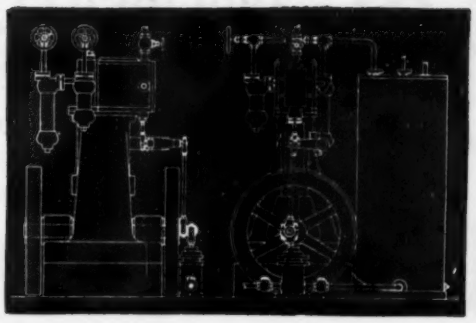

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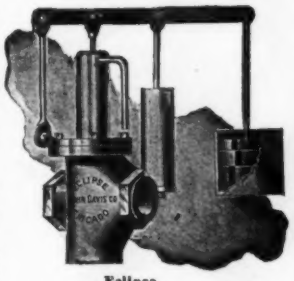

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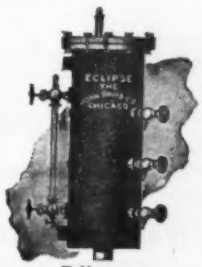

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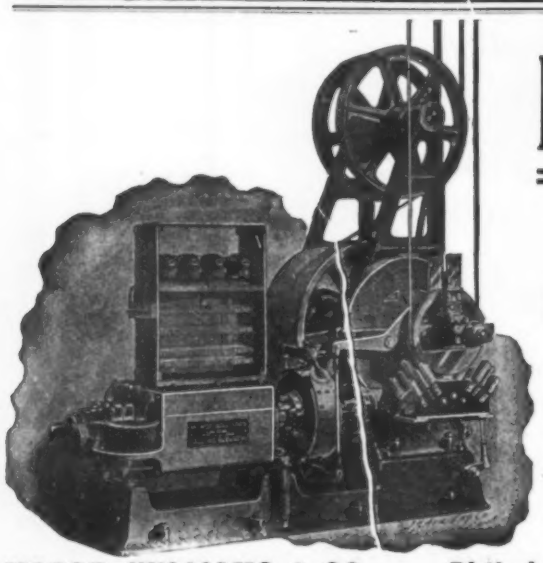

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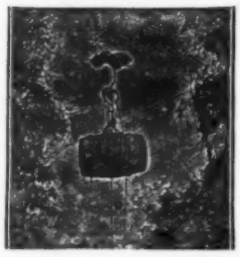

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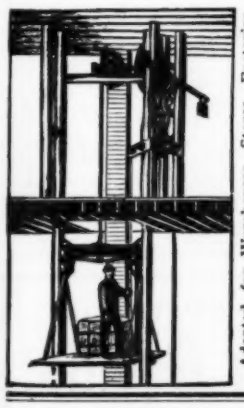

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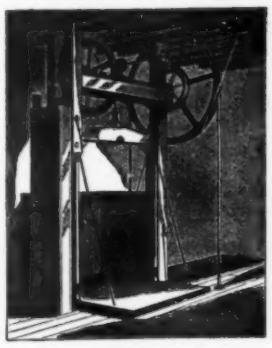

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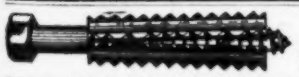

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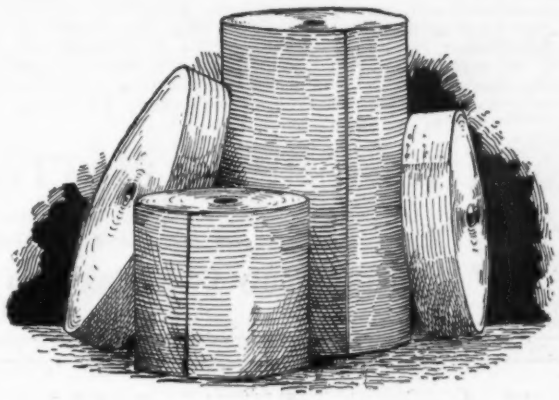

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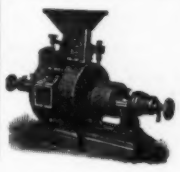

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The bill prays for a preliminary writ of injunction, to be continued during the pendency of the suit, and upon the final determination thereof to be made perpetual, and also demands an accounting and damages.

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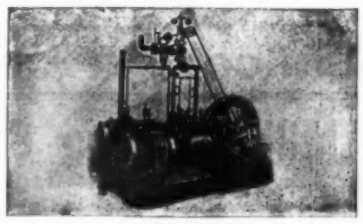

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MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

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Manufacturers' Record.

RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President.

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RICHARD H. EDMONDS,
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BALTIMORE, NOVEMBER 28, 1901.

COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

New England and Southern Technical Training.

Anybody desiring to be confirmed in his opinion as to the practicability of any industrial suggestion cannot go amiss in consulting a New Englander. New England has won success by industry, and from its experience is qualified to recognize the merits of any practical project for the advancement of industry generally. The real New Englander is likewise broad-minded and generous. An excellent illustration of its liberality is given in an editorial published in the Evening Standard of New Bedford, Mass., bearing upon the plan for technical training of the poor white boys of the South. It calls it a grand scheme, and says:

Among the encouraging signs for the South is the waking up of the people of that section to the necessity of better technical education for the poor white boys. It is now a generation past since General Armstrong, one of the most far-seeing men that this country has produced within a half-century, established the Hampton Institute. While General Armstrong's fame seems in a fair way to be eclipsed by that of his noted pupil, Booker Washington, it ought never to be forgotten that to him is due, more than to any other one man, the conception of the magnificent work which is being done for the negro in the lines of industrial and technical education. That work has now passed the primary and experimental stage, and may now be regarded as firmly established. Those who venture to depreciate it on the ground that it has not elevated the race to an equal standing with the whites, forget two things—first, that it is only one of the elements of uplifting, and cannot do the work alone; second, that nobody has any business to look for large returns under another quarter of a century. What may yet be realized is beyond imagination, but enough is indicated to show that a similar training must be provided for poor white boys, if they are not to be hopelessly handicapped in life's race.

A thoughtful address dealing with the need of thorough technical education for white boys, and especially for those boys whose circumstances cramp them financially, was made a day or two ago at a meeting of the Southern Cotton Spinners' Association, held at Atlanta, by Richard H. Edmonds, editor of the Manufacturers' Record of Baltimore. We like the way in which he spoke of the utilization of the South's most valuable raw material by developing, through technical education, the wealth-creating potentialities of its poor white boys. Few people give half enough thought to the truth that the youth of this country constitute its most valuable raw material. Whether we regard the children as wealth-creating potentialities, or as potentialities of intellectual and moral progress, they far outrank in every way the coal mines or the cotton fields. Brains and hearts of the children must be depended on for the future of this country, North or South.

Mr. Edmonds' address, as was appropriate, was directed to the development of technical training as a factor—a necessary factor—in industrial progress. Something in that direction is already being done, but not a tithe of what is necessary and feasible. Appreciation of the question's importance and public spirit both lag at times. Mr. Edmonds makes a sharp appeal to wake to the opportunity, to undertake the task of doing by the poor boys of the South as they should be done by. He urges upon successful men the example of private personal generosity in the cause of industrial education. They must, he says, give of their wealth, not in a hap-hazard measure, but upon a strictly business basis. And as a practical sample of what can be done he cites the plan which has been started in the Georgia School of Technology by the generosity of Aaron French of Pittsburg. Mr. French's plan provides for scholarships to be held by boys at least sixteen years of age and the sons of families owing less than $3000 worth of taxable property. The scholarships awarded by competitive examination run for four years, the holders of them being furnished at such time as the president of the institution may think necessary for expenses, books, fees, etc., to an amount not exceeding $125 a year. The holder must give small monthly notes, payable after graduation, covering the amount of money advanced upon the scholarship and bearing no interest before maturity. This plan Mr. Edmonds wants to see elaborated and expanded by the foundation of similar scholarships by Southern men in every Southern institution which shows itself worthy to administer them.

The Evening Standard quotes at length details of the plan, and in conclusion says:

We quote the whole of this, partly because it is such a broad and admirable conception, and partly because there is no reason why the suggestion need be confined to the South. This idea that hundreds of prosperous business men should co-operate in helping the boys to better education than they could possibly gain unaided, and that the work should be an exhibition of voluntary co-operation, is a grand one. If Mr. Edmonds succeeded in inspiring the Southern Cotton Spinners' Association to take up a work like this, he has done that of which any man might well be proud. He has given an impetus to a movement which will repay the South ten thousand times all it will cost. All the nation ought to be glad to see it carried into effect.

But there is no reason why such a good work should be confined to the South. Opportunities for technical education are indeed more numerous and more easily availed of in the North; but there is no lack of opportunity for extension. We, too, have poor boys who are valuable raw material, and who stand in danger of being wasted because of their lack of the small financial resource that is needed. They ought to be taken in hand by the fortunate and successful in some such way as Mr. Edmonds proposes to the well-to-do of the South. Money put into a scheme of that kind will be a good investment.

From Mr. William L. Sayer, the editor of the Evening Standard, the Manufacturers' Record has received in a personal letter additional encouragement, as follows:

I want to add a personal expression of my admiration for the broad and far-reaching conception which you have advocated. It seems to me that you have hit the mark precisely, and that your suggestion should meet the heartiest practical response. You will pardon me, I trust, for applying your address to the conditions here. Living in a cotton-manufacturing city, I see how we need to think of these things.

Not a century ago New Bedford was dependent for its life principally upon its fisheries. Discovery and economic changes threatened to end that life, but with the adaptability amounting almost to genius for which New England is noted, New Bedford turned to cotton manufacturing and other industries, and today has thirteen cotton mills and thirteen other incorporated industries, the capital invested in whaling being less than 2 per cent. of the amount invested in manufacturing. The capital of the cotton mills is $19,589,000, two other mills being assured, increasing the number of spindles to 1,489,390, and the capital of the other industries, exclusive of a variety of small ones, being $3,085,000. In ten years the number of spindles increased 539,380. These facts prove the value of industry, and backed up as they are by the New Bedford newspaper, point to the necessity of preparation on the part of the South to take its share in the progress of the country. If New England, with all its accomplishments, still feels the need of adequate training for its young people, how much more so ought the South to bestir itself in the same direction?

Don't let the poor white boys of the South go to waste.

Against the Grout Bill.

With the reassembling of Congress the National Dairy Union, "an organization of the allied dairy interests for legislative purposes," as it describes itself, is coming to the front again in organizing a petition to Congress for the passage of the anti-oleomargarine measure known as the Grout bill. The petition is being organized by means of postal cards mailed to various parts of the country addressed to the secretary of the National Dairy Union, and bearing on its back a printed petition in which the statement is made that the Grout bill failed of its passage in the Senate "because of the rush of important appropriation bills at the close of the session." Quite a lot of exploiting literature accompanies the postal card, and in one of these documents the statement is made that "failure of the Senate to act upon the bill was due wholly to the fact of the measure's delay in the House committee on agriculture." The general impression has been that the Grout bill failed in the Senate, in spite of the advance made with it there, because of a recognition that the interests which would be injured by the passage of the bill were of more vital importance to the country than those represented by the National Dairy Union. The belief that the interests to be benefited by the bill are of less importance than those that would be injured by it still persists, and it is hoped that the activity of the National Dairy Union is being matched and exceeded by that of its opponents.

In the Right Direction.

The Houston Chronicle is contending for a gubernatorial campaign which shall occupy itself with State issues rather than with national ones. It regards irrigation and drainage, the establishment of technological schools and experiment stations, the construction of good roads and the development of the mineral wealth of the State as of far more importance than discussions of the money question, the tariff or mere party success in national elections. The Chronicle recognizes the tremendous material possibilities of Texas, and in contending for a campaign which will contribute to the realization of them, instead of merely holding a party together for presidential purposes, is on the right line. If such a programme were possible in every State in the country, the progress of the United States during the next five or ten years would be far greater than that of the past ten or twenty years. So the State which enjoys the politics of material advancement will distance in the industrial race all others involved in the tangle of office-seeking and office-holding.

Friends of Dr. Charles W. Dabney, the president of the University of Tennessee, and of Dr. E. A. Alderman, president of Tulane University, New Orleans, regret that the visit of those two gentlemen to New York in the hope of advancing the cause of education in their section has been made the occasion for an utter misrepresentation of their position. Reports have been sent broadcast from New York detailing their alleged utterances in connection with what is known as the Ogden dinner. These reports, originating not in ill-intent, but in the looseness of yellow-journal methods in newspapering, have been specifically denied by Dr. Dabney and Dr. Alderman, though such a denial was not needed among persons who know the two gentlemen. More than one newspaper in the South gave thoughtless currency to the reports, and it is hoped that they will be as prompt in publishing the denials, so as to counteract among the uninformed the possible injury following the original publication.

In a statement embodied in the annual report of Director W. R. Merriam of the census Mr. S. N. D. North, chief of the manufacturing division, recommends authorization by Congress of an annual canvass of the cotton ginneries of the country by the census bureau. The bureau has made two reports on cotton production based upon a canvass of the ginneries, and its work has been done so thoroughly and so promptly that cotton producers, cotton exchanges, cotton factors and cotton manufacturers have given overwhelm-

ing approval of its services in this direction. Under the system adopted by the bureau it will be possible to publish as early as May or June in each year, or three or four months in advance of other methods, the annual cotton report, and it is believed that the commerical advantages resulting from such a report will be great.

The total appropriation for the Georgia School of Technology since its establishment thirteen years ago has been $429,000. In a report to the Georgia legislature the estimate is made that by this outlay the State has acquired an institution which could easily be capitalized as a manufacturing establishment at $500,000. This estimate is really a small one if it is intended to indicate the value of the institution to the State. It has trained hundreds of young men, the attendance having increased from 129 in 1888 to 463 this year, and has trained them to become direct contributors to the material development of Georgia. The capitalization of these graduates would represent a great deal more than the $500,000 which have been spent for the buildings and the maintenance of the institution.

The Southern Farm Magazine.

In the campaign for education in the South, which has been earnestly waged for many years, too much attention has been given to methods for training the mind and too little to those for training the hands. At the same time, in spite of the South's efforts to give a schooling to its children, black and white, the former class have seemed to monopolize much of public attention. There is a change under way in this respect, and the Southern Farm Magazine for December publishes two papers revealing the new tendencies. One is by President George T. Winston of the North Carolina College of Agriculture and Mechanic Arts, treating of the necessity for teaching the rising generation the use of tools and of giving them a knowledge of machinery and its functions. The other, by Mr. Richard H. Edmonds, offers a plan for making effective the suggestions of Dr. Winston through contributions on the part of cotton-mill owners, railroad companies and other interests working for Southern development for the establishment of at least 1000 scholarships in Southern institutions, already devoting some of their efforts to technical training. In the same issue Peter Pechin suggests that while much of the talk in recent years has been for education, the acts have taken the form of public-school training, which, he contends, is not always education.

Other leading articles are an analysis of the population statistics of the twelfth census by Edward Ingle, showing the inclination of the negroes of the country to scatter; an exceedingly practical paper by Col. J. B. Killebrew on peach culture in the South, and a review of a movement in Alabama which promises to be effective in directing to that State a large number of thrifty German immigrants. Other topics discussed include improvement of public highways, changes in Southern journalism, the needs of capital for the South, methods of advertising a community in the right way, rice prospects, fruit culture, etc.

The Southern Farm Magazine is published monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Its regular subscription price is $1 a year. The Magazine, though, is offering for a brief time to new subscribers a rate of twenty-five cents a year. This plan was adopted a year ago, and was found to be so popular that it is now repeated.

THE SOUTH'S NEGLECTED ASSET.

More Endorsements of the Plan for Industrial Education of White Boys.

Referring to the plea made by the editor of the Manufacturers' Record in behalf of the poor white boys of the South, the New York Commercial says:

"Addressing the Southern Cotton Spinners' Association at the recent meeting in Atlanta, Richard H. Edmonds of the Manufacturers' Record expressed deep regret at what he considers the inexcusable neglect of the poorer white boys of the South in the matter of provision for their industrial education, and more particularly their technical training in the craft of the cotton mill. 'The whites of the South should not,' he declared, 'permit friends in the North to do more specifically for the industrial education of the negroes—as at Hampton and Tuskegee—than the South is willing to do, aside from taxation, for the poor white boys.'

"The point was most excellently taken on a very timely occasion, and, after detailing interestingly the philanthropic plan of Mr. Aaron French of Pittsburg, who has made provision for several industrial scholarships amounting each to $125 per year at the Georgia Institute of Technology in Atlanta, Mr. Edmonds made these very practical suggestions:

"'It is not necessary to present $10,000 in cash or in interest-bearing securities to each of the score of Southern institutions, most of which are struggling in the face of many difficulties to do their part in the training of Southern white boys. There are in the South 668 cotton mills, a dozen or more great systems of railway, and hundreds of industrial undertakings of various kinds, which, without trenching upon their capital or without diminishing perceptibly the dividends for their stockholders or individual owners, could provide the means for at least 1000 scholarships, each matching in amount of annual cost and covering the same time as those founded by our Pittsburg philanthropist. I should like to see 1000 founded at the beginning of the next four years, so that by 1906 we should have 4000 Southern boys enjoying them. Each cotton mill, steel plant, iron mine, oil well, lumber mill and railroad now able should promise to contribute for four years or less $125 a year for the necessary expenses of at least one poor boy at a Southern technical school who shall show himself by examination to be capable of enjoying such an aid.'

"The blame for failure by Southern legislatures to provide for 'the kind of public education that pays' is laid by Mr. Edmonds at the door of public opinion. The public in the South does not put the necessary pressure on the lawmakers to secure such appropriations, with the result that active solicitation among the friends and sympathizers of the negroes may in the end give the Southern blacks a marked advantage over Southern whites in the matter of technical education. A group of such States that is developing its natural resources so rapidly and so effectively, and whose people are so prosperous and getting so generally and so steadily rich, ought not to neglect this thing very much longer. That address of their Maryland friend and defender ought to bear immediate fruit in turning popular attention there to a serious duty."

On the same subject, and quoting the plan at length, the Morning Star of Wilmington, N. C., says:

"Mr. Edmonds dwelled forcibly on the importance of technical training, the utilizing of what he called our 'raw material'—our young men—and converting that 'raw material' into finished workmen, thus making it manifold more serviceable and valuable, as the raw materials in the fibers, woods and metals is multiplied in value by being skilfully converted into something useful. After speaking of the errors of the past, and what a drawback the want of skilled labor has been to the South in her industrial endeavors, he made a remedial suggestion that is a capital one.

"He asked the question if the poor but bright young men of the South would accept help given in this way, and answered the question by saying that he had written to the presidents of nearly all the schools in the South where any attention is given to industrial training, and that they all replied in the affirmative, citing the fact that they nearly all have some young men who were helping to pay their expenses by manual labor in the institutions, showing the desire to learn and the willingness to work to learn. If this suggestion and plan of Mr. Edmonds be carried out, the near future will give us thousands of skilled and competent workers, who would themselves become the teachers of others.

"It is a hopeful sign for the South that so much interest is being exhibited in the subject of technical schools and in the industrial training of our young men and young women, for they should not be overlooked."

The Daily News of Staunton, Va., says:

"R. H. Edmonds, editor of the Manufacturers' Record, delivered an address some days ago at Atlanta, Ga., before the Southern Cotton Spinners' Association, in which he made a strong plea for the technical education of the white boys of the South, whom he styles 'raw material,' and whom he wishes to see 'worked up' into material fitted to handle successfully the other great 'raw material'—cotton. It is a timely plea, and one that we hope and believe will have great influence. We have ourselves for years been pleading for more technical training for our boys here in Virginia, so they may be qualified to develop the great natural resources of our State."

The Sentinel of Grenada, Miss., says:

"Mr. Richard H. Edmonds of Baltimore, editor of the Manufacturers' Record, and one of the deepest and most philosophical thinkers in the South, recently delivered an address in which he made a peculiarly strong plea for technical education for the poor white boy of the South. He says the poor white boy is the greatest of our raw products, with possibilities unlimited.

"In a comparative review Mr. Edmonds discloses the wonderful resource of the South—her cotton making white the fields, her mines of iron, coal and lime, her wealth in forest growth and her illimitable water-power, any one enough to form the backbone of a great nation, but after all has been said, the greatest resource of all—the white boy—has been neglected.

"This conclusion he reaches because of the lack of that education which will fit the boys and young men for taking charge of the South's factories and managing them, instead of having to send North and East for experts to fill these places, leaving the menial places to be supplied by the home talent. This is all wrong, and is the case only because the people of this section have not awakened to the importance of educating the hand along with the head; in truth, it would be preferable to somewhat neglect so much brain education if, by so doing, an improvement could be had in developing more artisans. One reason why New England people have acquired so much wealth is because they have always recognized that the man who takes the raw products and turns them into finished goods is the man who makes most. To do this they have educated their hands along with their heads.

"This is what the South must have if it ever reaches that pinnacle of greatness which is in store for it. Mississippi has made a start in that direction in her school at Starkville—the A. and M. College. This institution will result in untold good to the State, and should be encouraged. Pity there are not more like it in the State. The people of the South should turn their attention more to industrial education. It will pay—and handsomely so, too."

The Morning News of Savannah, Ga., says:

"The address of Mr. Richard H. Edmonds before the Southern Cotton Spinners' Association in Atlanta the other day ought to have the careful and friendly thought of those to whom it was directed. It was a plea to give the poor white boy a chance by affording him the opportunity of acquiring a technological education—an education that will fit him to take part in the industrial development of the South that is going ahead in such promising manner. The South is rich in raw materials, but none of them is more promising than that out of which may be made future engineers, builders, superintendents, etc.—her white boys. Through force of circumstances much of this first-class material cannot be polished up and finished without outside aid. The parents of the boys haven't the means to give them the education they need.

"Mr. Edmonds submitted a plan by which several hundred Georgia boys, he thinks, would be helped to an education of the kind referred to. He would have the railroads, the manufacturing establishments and corporations of other kinds take the matter up and establish scholarships, to be bestowed after competitive examinations. In order that the beneficiaries may not feel that they are objects of charity, the sums advanced for the schooling are to be repaid in easy instalments after the graduation of the pupil. In other words, the necessary money is to be in the nature of a loan on long time and without interest until the pupil is graduated and becomes a wage-earner. The details of the idea were clearly set forth in Mr. Edmonds' address. There are many reasons why it should be adopted, and none that we can conceive of why it shouldn't.

"The need for more technically educated young men is already being felt in the South. The few schools of technology that we have canont supply graduates fast enough to meet the demand. Railroads are being extended, mills are going up, mines are being opened; there are bridges to be built, tunnels to be bored and roads to be graded. All of these things require expert knowledge for the building and the after operation. We have here an abundance of brains; all it needs is training. We must have more white boys in the technological institutions. Mr. Edmonds has shown one way of getting them there. And we need more schools to train the hands and the heads in the industrial arts."

One day last week flats and barges carrying 1,300,000 bushels of coal passed from the Kanawha river into the Ohio on their way to Southern markets.

FEATURES OF THE EXPOSITION AT CHARLESTON.

The Promise of Success for the Enterprise Which Will Open Its Gates Next Week.

By August Kohn.

[Written for the Manufacturers' Record.]

The South Carolina Interstate and West Indian Exposition will be an expostion with a meaning. It will not be commemorative of any particular event, nor will it mark an epoch in the history of the nation, the State or city; but its sole purpose is to emphasize the advantages from an industrial and commercial standpoint of the South, and especially of South Carolina and Charleston.

As the name indicates, one of the cardinal purposes of the exposition is to bring out the opportunities of the West Indian and South American trade, and to bring the people of these countries and those of the United States into closer personal and business relationships. While the exposition does not pretend to be upon as immense a scale as the World's Fair at Chicago, it will surpass in scope, result and features anything that has heretofore been undertaken in the South. It has been planned upon broad and liberal foundations, and the purpose, which has always been general, has grown as the undertaking has developed.

An effort was made to secure an appropriation through the federal government, but for some reason it failed. This did not blight the hopes of the exposition management, but instead stimulated the people to harder work and to more successful results. The exposition has been planned and built practically in its entirety by the people of Charleston with the co-operation of some of their outside friends. Certain States and municipalities, appreciating the vast opportunities of Southern trade and the possibilities of the West Indian commerce, have gone into the exposition with a whole heart and open purse, and have constructed buildings, and have done their part of the work with real earnestness. Conspicuous among these and in the pioneer class are the cities of Baltimore and Philadelphia and the States of Maryland, Pennsylvania, Missouri, New York and Illinois. Many other States have come into line, but at a later period.

There is no question whatever at this time as to the success of the exposition undertaking. It is the first exposition in the history of expositions that has been built without government assistance, and it is also the first exposition built upon as large a scale as this that has been built within the amount originally estimated, and although more than a million dollars have been spent upon the exposition, the estimates that were originally made have all been within the amount originally planned. Competent judges and exposition experts all say that it is the cheapest built exposition that has ever been known, and that there will never be another exposition that will be built to show such splendid results, such fine buildings, such general treatment and such varied architecture as that at Charleston for the same money.

Some people have gotten the false impression that the exposition will not be as big a thing as they had hoped for, but when it is by long odds the greatest undertaking of the kind that has been carried to success in the entire South it will be realized that it is no small affair. The Cotton Palace alone, which is only one of three similar buildings, contains more than 3,000,000 feet of lumber, is 350 feet long, and the dome is 150 feet high, and contains more than 50,000 square feet of floor space. The Commerce Building, which is to the right of it, contains about the same floor area, and the Palace of Agriculture, which has been constructed through the aid of the State of South Carolina, is built upon similar proportions. Then, in addition to the Palace of Commerce and the Cotton Palace and the Agricultural Building, there are the buildings devoted to exhibits of machinery and electricity, minerals and forestry, transportation, Woman's Department, the administration offices, and the Negro Building, which is in charge of Booker T. Washington of Tuskegee, who has arranged for a fine display of the work of his race.

A great deal of stress has been laid upon the Cotton Palace, in which is to be shown the cottonseed and all that comes from it. This will embrace all classes of cotton manufactures and all of the varied products of the cottonseed in the shape of oils, fertilizers and the like. The Cotton Palace has been placed in charge of Mr. D. A. Tompkins of Charlotte, N. C., who stands at the very head of his profession, and who has done so much for the development of cotton mills and cottonseed-oil mills in Southern territory. Mr. Tompkins has mapped out not only a complete and practical display of the products of the cottonseed and the cotton lint, but he has put especial stress upon a department in which he will show to the manufacturers of the South opportunities of foreign business. He will have in this display samples of the grades of goods that are being used by foreign buyers, and the problems how these goods can be gotten up to suit the outside markets and exactly what style of goods and what manner of packing is desired by this trade will be solved. And in addition to this Mr. Tompkins will have displays from practically all of the large mills in the Carolinas, showing to the foreign buyers, and especially those of Cuba, the South American republics and Porto Rico, what grades of goods are gotten up by the manufacturers of the South and what merits these goods have over other classes of manufactured products. The Southern Cotton Oil Co. will also make an extensive exhibit in this building, emphasizing its cotton-oil products, and the Virginia-Carolina Chemical Co. has secured a section in this structure to give some idea to those who are not now using fertilizers what are the possibilities of its use.

Mr. Tompkins and Mr. J. C. Hemphill, the editor of the News and Courier, have had interviews with the Secretary of War relative to bringing to Charleston a number of leading Cuban and West Indian merchants so that they can see the exposition, inquire into the cotton mills and industrial development of the South, visit other parts of the State and Southland and become better acquainted with the American people. Secretary Root was very favorably impressed with the proposition, and thought so well of it that he promised to co-operate in any way possible towards securing a transport and having the merchants brought from Havana directly to Charleston, and the only impediment now is the scarcity of available transports, and, by the way, it may be mentioned that Charleston is the nearest South Atlantic port to Havana.

Senator McLaurin, with the co-operation of the officers of the exposition, has secured the consent of the federal authorities to place in Charleston practically all of the exhibits that were at Buffalo. These exhibits will be brought in their entirety from Buffalo to Charleston at the expense of the exposition company, and will be quartered in structures provided for by the exposition management. Most of the federal exhibit will be in the main building and in the exedrae, except the fisheries section, which will be in a specially constructed building, and which will be liberally stocked with fish from the resourceful rivers and waters of this section.

The exposition will positively be opened on December 2, on which occasion there will be an interesting program, and Senator Chauncey M. Depew of New York State, who has been a great friend of the exposition undertaking, will make the opening address. The real opening of the exposition, as provided for in the charter which was secured from the State, will be on December 1, and this day will be devoted to religious services, in which all of the denominations represented in the State will participate.

The exposition will be complete throughout, and a great many handsome things and very new things will be shown. The buildings, which were constructed upon the plans of Mr. Bradford L. Gilbert, are beyond question handsome, and are as beautiful in detail as any that have ever been seen at any other exposition. It would be useless to enter into detail here and give a minute account of all of the handsome statuary that has been erected and all of the natural beauties of the exposition grounds, which have been so improved by art, or of the many other delightful things that will be found at this exposition, not to say anything of the charm of Charleston and her people.

It may, however, be very well to give a few cardinal points relative to the exposition grounds and buildings. The site upon which the exposition has been built is a tract of 160 acres on the eastern bank of the Ashley river about two and one-half miles from the business center of the city and within the corporate limits. A part of the tract was originally known as the Washington Race Course, and this property will now be used in part for fine racing during the exposition period. There are eleven principal buildings, constructed at the entire expense of the exposition company.

They are the Cotton, Commerce and Agricultural Palaces, Minerals and Forestry Building, Administration Building, Auditorium, Woman's, Art, Negro, Transportation and Machinery Buildings.

The Cotton Palace, or Textile Building, is 50,000 square feet of ground area, with dome rising 160 feet above the Court of Palaces and a facade of over 360 feet.

The Commerce Palace, or Liberal Arts Building, has 43,000 square feet of floor space.

The Palace of Agriculture has 43,000 square feet of floor space.

The Auditorium has a seating capacity of over 3500.

The Administration Building has 16,000 square feet of floor space.

The Minerals and Forestry Building has 20,000 square feet of floor space.

The Court of Palaces, around which the main exposition buildings are grouped, is 1200 feet in length and over 900 feet in width, with sunken garden in the center 700 feet long and 450 feet wide. The Court of Palaces contains 1,650,000 square feet, as compared with 480,000 square feet at the Trans-Mississippi Exposition, 720,000 square feet at Paris, 563,000 square feet at Chicago, 1,530,000 square feet at Buffalo.

Union freight and passenger stations are now on grounds for Atlaitic Coast Line, Plant System and Southern Railway. Direct steamship communication with Boston and New York is had.

Special Commissioner Theodore C. Knauff has secured all exhibits from Cuba and Porto Rico. The entire exhibits of these countries that were at Buffalo will be removed to Charleston and be supplemented by additional exhibits which Mr. Knauff has secured during his stay in these islands in the interest of the exposition.

The Charleston directory has had an uphill time of it in building an exposition upon the resources of a State which, although prosperous and vigorous in its industrial and agricultural pursuits, is far from being one of the richest in the country, but it has gone ahead with its task, and has really wrought wonders with the money that it has had at its command. The following are the members of the board, to whom practically the entire credit for the great undertaking is due:

F. W. Wagener, president.
W. H. Welch, vice-president.
Samuel H. Wilson, treasurer.
John H. Averill, director-general.
John F. Ficken, general counsel.

Directors: F. W. Wagener of F. W. Wagener & Co., wholesale grocers; W. H. Welch of Welch & Eason, wholesale grocers; Samuel Lapham, chairman ways and means committee, Charleston city council; J. C. Hemphill, managing editor of the News and Courier; J. L. David of J. L. David & Bro., clothiers; C. S. Gadsden, president of Charleston & Savannah and Atlantic Coast Line railroads; John F. Ficken, attorney-at-law and ex-mayor of Charleston; Francis K. Carey, president Charleston Consolidated Railway, Baltimore, Md.; Willie Jones, cashier Carolina National Bank, Columbia, S. C.

Every exposition and every great undertaking seems to develop one man for its emergencies, and that one man in the case of the Charleston Exposition has been Capt. F. W. Wagener, and it has been largely due to his confidence in the undertaking that it has grown to be the great success that it is.

There are already on the exposition grounds more than twenty acres of Midway attractions. Practically all of the good features that were at Buffalo have come to Charleston. A great many special days have been provided for, and a number of conventions, reunions and assemblages have asked for and secured special days during the exposition period, which will continue from December 2 until June 1, 1902.

West Virginia Mining.

James W. Paul, chief mine inspector of West Virginia, has published in one volume the reports for the fiscal years ending June 30 in 1898, 1899 and 1900 of the coal mines in the State. The volume will be found valuable to many interests. The three reports being brought together in this way enables one to note the progress which has been made in coal-mining in West Virginia even in three years. Between 1898 and 1900 the number of tons of coal of 2240 pounds each from all the mines increased from 14,294,865 to 18,886,911, the number of tons of coke of 2000 pounds each from 1,742,256 to 2,496,107, the value of coal and coke from $11,413,634.84 to $18,418,469.74, and the number of employes from 23,262 to 28,017.

The value of manufactured products in North Carolina in 1900 was $94,919,663, an increase of 135 per cent.; of capital $76,503,894, an increase of 133 per cent., and establishments 7226, an increase of 97 per cent.

PROGRESS AT SOUTHERN PORTS. IX--WILMINGTON.

By J. E. Thompson of the Wilmington Morning Star.

[Written for the Manufacturers' Record.]

Of a quaint, old Southern city like this one, its name hallowed by many sacred bits of history, one hears more often of its past glory than of its present achievements or future possibilities.

In this latter day, however, when cities are no longer judged by an illustrious past or my their glories gone by, it is well when their inhabitants early grasp the stubborn fact that to be recognized by a place on the map, their ideals must rest in the commercial and industrial present or future, for it is by that standard that men are wont to judge the part played by any town in the world's progress.

In late years Wilmington people have become imbued with that very idea, and a most happy result is recorded.

The past decade has been one strictly of commercial growth and industrial prosperity. In every line there has been a healthy improvement of conditions, and Wilmington ranks easily the first city in North Carolina, and among the best by all standards on the South Atlantic coast.

The city is situated on the banks of the Cape Fear river, thirty miles from its entrance to the sea, eleven miles west from the seashore, and at elevation of thirty-eight feet above sea-level. Next to the river a gently rolling surface, on which the city is located, permits of easy drainage to the river and the carrying off of all impurities from the soil.

The equability of temperature and precipitation from year to year, and the freedom from excessive heat or cold, shows the adaptability of the climate toward the proper development of both animal and physical nature, and its suitability as a place of residence for mankind.

Its summers' heats and winters' colds are tempered by the ocean breezes, and its slight inland situation relieves it from the severe effects of the storms moving northeastward, either along the coast or inland along the mountain ranges. Within the history of the weather bureau only three storms damaging to the city or its commerce have occurred locally within the past twenty-five years. It is well called the "subtropical region of the Old North State," and by reason of these extremely favorable climatic conditions the territory contiguous to Wilmington is the garden-spot of the world for trucking.

Annually thousands of dollars are poured into the channels of local trade from this source alone. The strawberries shipped from this immediate section last year amounted to more than 15,000,000 quarts, yielding a return of about $2,500,000.

The transportation facilities are very abundant and satisfactory. Six railroads terminate here, and but little of the most desirable land is more than five or six miles from some shipping point. The Wilmington, New Berne & Norfolk Railroad and roads embraced by the Atlantic Coast Line and Seaboard Air Line give quick transportation to the great markets of the North. The Wilmington Seacoast Railroad from the sound connects at Wilmington with all the above lines, and by reason of these facilities a mammoth trucking industry has arisen, which is steadily increasing, as an almost unlimited area of land is developed. The product of the soil here is of the very finest that reaches the world's markets.

Wilmington's harbor facilities are as good as may be found on the Atlantic seaboard, and the city is the natural outlet of a large section of country. The river has a depth of twenty-two feet from the city to the ocean, and the government has already allowed an appropriation for mooring dolphins in the city harbor proper where large vessels may come and rest with safety and ease prior to being docked for discharging or receiving cargo. The United States engineer corps here has already incorporated in its recommendation to Congress a budget for dredging the upper Cape Fear from Wilmington to Fayetteville, a distance of about 100 miles by river in the interior. The preliminary survey has already been made, and when the improvement is complete it will afford adequate and cheap water transportation to a large section of country which now depends on two lines of steamers of limited capacity. A third line of boats makes regular trips up the northeast branch of the Cape Fear, thus bringing in touch with Wilmington a large area of "feeding" territory.

In addition to the city's large coastwise trade accruing from sailboats, it enjoys an excellent service to Georgetown, S. C., and New York through the Clyde Steamship Co., and a second company is being formed here by wholesale merchants to be operated in a mutual way and having for its object a lower freight rate. A new steamboat company was also organized last year, having for its purpose the operation of a line of smaller steamboats between Wilmington, Charleston and Georgetown.

A commercial summary of the city might well be made by saying that the principal exports are naval stores, cotton and lumber.

It has $11,000,000 taxable property, two national banks with a combined capital and surplus of over $750,000, the daily average amount on deposit about $2,000,000; two savings banks with capital and deposits of about $900,000, an oil-distributing plant, cottonseed-oil mill, two large cotton factories, three fertilizer factories, three daily newspapers, two large cotton compresses, two ice factories, rice mill, seven saw-mills (capacity about 60,000,000 feet a year), one paint factory, cotton-dyeing establishment, shipyard, shipbuilding establishment, bag factory, two electric-light plants, two woodworking factories, two wood-distilling factories, electric cars and power plant, gas plant, railroad machine shops, car shops, crate factory, shuttle-block factory, baking-powder factory, sash, door and blind factories, and many other industries.

About fifty wholesale grocers and dealers in hardware, drugs, dry goods, furniture, boots and shoes, etc., do an annual business of $50,000,000 to $60,000,000.

An insight into the export trade of the city may be gathered from the following annual compilation made by the secretary of the Produce Exchange at the beginning of the present calendar year:

Domestic—Cotton, 30,301 bales; spirits, 23,074 casks; rosin, 26,540 barrels, tar, 51,015 barrels; crude, 19,647; lumber, 23,503,067 feet; pitch, 2538 casks; peanuts, 126,521 bushels; cotton goods, 8240 bales; yarn, 862 packages; shingles, 2,911,325; 254 casks tar.

Foreign—Cotton, 257,504 bales; spirits, 1533 casks; rosin, 144,265 barrels; tar, 18,924 barrels; crude, 200 barrels; lumber, 14,750,231 feet; pitch, 805 casks; peanuts, 1200 bushels; shingles, 2,293,400.

These figures show substantial gains over preceding years, and present indications point to still more encouraging statistics this year.

The harbormaster's compilation of vessels entering the port for the same year also shows a healthy increase, the number of vessels of ninety tons and over being 261, with a combined tonnage of 312,385. Thirty-six were foreign steamships, thirty-two barks, two brigs and thirteen schooners, the remainder being American vessels.

Of the important enterprises set on foot during the present year may be mentioned the trolley line to Wrightsville Beach, a distance of ten miles; building of the Masonic Temple, Elks' Temple, Delgado Mills, Murchison Bank and Office Building, Walker Memorial Hospital at a cost of $75,000; the establishment of a new savings bank, $30,000 capital; two lumber plants and crate factory, two large menhaden fisheries near the city, a $30,000 brick manufactory and innumerable smaller industries.

The county and city are far-famed for their public schools and school property. The city has an eight months' free school in each year.

The finest road in the State runs from Wilmington to Wrightsville Sound, just nine miles east of this city. It passes through some of the best land of the country, is made of oyster shells, has no grades, and is practically free from curves.

Realizing the importance of good roads, the county commissioners have secured legislative enactment authorizing the issue of $50,000 in bonds for road improvement. This is now available, and is applied to the building of a system of macadamized roads penetrating the remotest sections of the county.

The city holds out to the investor or seeker for pleasant environment one of the most delightful locations in the Carolinas.

GERMANY'S TARIFF AND THE COAL TRADE.

By F. E. Saward, Editor of the Coal Trade Journal.

[Written for the Manufacturers' Record.]

The most important question which is engaging attention in Germany at the present time is that relating to the new tariff proposed to be adopted and brought into operation at the beginning of 1904 in the event of the tariff bill being passed in its present form, and commercial treaties negotiated with other countries on the basis of the scheme now under the consideration of the federal council. Under the new tariff considerably greater protection is suggested for the iron, steel and engineering trades than obtains under the existing customs duties, but no alterations are projected in the condition of the coal industry or in the imports of fuel from other countries. The latter point is all the more interesting when it is remembered that a few months ago a prominent journal ventured to suggest that in the elaboration of the new tariff the German government might be disposed to consider seriously the question of imposing a duty on the imports of coal. This was denied by the syndicate, which claimed that the proposal for the imposition of a duty on coal emanated solely from the editors of the paper. There is no reason for doubting the accuracy of the explanation, although one cannot refrain from thinking that the article in question was prompted by interested parties who are desirous of excluding outside coal from German markets. It was a ballon d'essi, but it has failed, and when one bears in mind the past and present attitude of the syndicate towards consumers, it is impossible to imagine a greater injustice towards the latter than the imposition of a duty on coal imports. The decision to allow coal to enter free, as at present, has apparently not been productive of any complaints or protests on the part of coal owners. Any lamentations in this respect would be ridiculous in face of the high prices which are still maintained for nearly all classes of fuel.

It is, however, a question whether or not the customers of the State coal mines receive more favorable treatment from the hands of the authorities than those who obtain or desire to procure their supplies directly from the coal syndicate. Take, for instance, the firms engaged in the heavy iron trade in the district of Saarbruck. Some time ago they prevailed upon the Saarbruck Chamber of Commerce to approach the Imperial Mine Direction at Saarbruck with a view to obtaining a reduction in the price of coal solely used in connection with the product of goods for export purposes. In due course the request was forwarded to the minister of trade and industry, who eventually replied that he was not in a position to meet the wishes expressed by the Chamber. This rebuff has not deterred a number of manufacturers in the district of Wiesbaden from endeavoring to form a coal-purchase association in order to procure deliveries at lower prices, but the effort has not been successful in any way whatever. The answer forwarded by the Saarbruck Mining Direction was to the effect that consideration could only be given to applications from new direct consumers when the requirements of the regular existing clients had been fully satisfied. That was, however, not the case at the time; the position rather was that a number of ordinary customers were receiving short deliveries. The attitude of the Mining Direction towards coal-buying associations depended upon the circumstances of each individual case, as the experience gained in former years had been of comparatively slight advantage. Such organizations, the reply concluded, had specially aided the sale of coal in times of abundancy of supplies, but they had not been proof against declining periods of industrial prosperity, when the associations had mostly been dissolved. Another instance of the apathy manifested by the government officials has been brought to light by the Trier Chamber of Commerce, which addressed a communication to the Mining Direction in regard to the complaints made last year of the extraordinary increase in the price of coal, especially to manufacturers whose individual consumption is insufficient to allow of their concluding direct contracts with the State mines in order to enjoy the benefits of the lower prices charged to consumers whose minimum demand amounts to 1800 tons per annum.

The Chamber admitted that the Rhenish-Westphalian coal syndicate stipulates that a larger quantity shall be agreed to be purchased annually as a condition to permitting an intending customer to buy direct from it, but it submitted that the syndicate itself had acknowledged this limit to be inappropriate, and that it had for some time past devoted attention to the question as to whether a system could not be devised whereby small consumers could also procure coal directly from the syndicate. (It may here be mentioned that the latter's minimum, except in exceptional cases, is 6000 tons per annum.) The communication further mentioned that, with a view to carrying out the scheme, the syndicate proposes to establish branches for the exclusive service of particular districts; that these branches will deal with consumers whose annual

demand individually ranges from 600 to 1200 tons, and that the first branch has already been opened in Dusseldorf. The Trier Chamber would not go so far as to propose that the fiscal authorities should do the same, but it suggested that there would be ample trade left for the merchants if the Mining Direction reduced the minimum so that the small consumers in question might obtain cheaper fuel with greater regularity and at appropriate periods. Some time elapsed before the Saarbruck Mining Direction replied to the communication. When the answer was received it was found that the fiscal authorities entertained apprehensions that if the 900 tons minimum, which has been in operation for twenty years, was reduced to 600 tons it would scarcely be practicable to adhere to this limit, on the ground that other consumers would demand direct supplies for even smaller deliveries. As a consequence the Direction could hold out no hope of a reduction of the minimum, and at the same time it submitted information in order to show that the terms offered by the coal syndicate are not more favorable to consumers than those stipulated by the State mining authorities.

At Chemnitz a few weeks ago 150 representatives of chambers of commerce and manufacturers assembled for the purpose of protesting against the attitude of the coal owners, especially in the Zwickau and Oelsnitz-Lugan districts, in regard to the methods of sale, and demanding a reduction in prices and the abolition of the strike clause. It was submitted at the gathering that the prices of coal in that district are relatively the highest in Germany, and that it is only with great difficulty that manufacturers can compete with those engaged in similar industries in other parts of the Fatherland. The meeting adopted resolutions undertaking to buy and continue to purchase foreign coal until the Saxon coal owners consent to make concessions in prices, so as to allow the local industries to compete in home markets, and until they refuse to grant reductions to districts outside of Saxony. It appears from this that Saxony suffers from the same complaint as Westphalia, in so far that distant coal consumers are favored to the detriment of the local industries of the districts or State affected. In the case of Upper Silesia the fiscal mining authorities have somewhat startled the coal merchants, who recently asked for a reduction in the price of coal.

Far from entertaining the suggested concession, the authorities informed the merchants that if it was agreeable they would release the merchants from their obligations under the existing contracts, as it would be an easy matter to dispose of the output elsewhere. It is needless to say that the counter offer of the fiscal authorities has not been accepted. It has, perhaps, been partly due to this fact that the Upper Silesian coal convention, in assembly at Kattowitz, decided, in view of the existing demand for coal and the impending requirements of the winter, to allow a large increase to be made in the quantity of coal sent away by the collieries by rail.

A remarkable admission in regard to the promotion of foreign trade at the expense of home consumers has been brought to light in regard to the Rhenish-Westphalian coal syndicate during the course of legal proceedings in connection with a coke contract of the Silesian Coal and Coke Works with the Prague Iron Works in Kladno and the Bohemian Mining Co. at Koniginhof. It was legally shown by evidence in the action that the Westphalian coke syndicate had sold coke to the two Austrian works in question for several years past at the abnormally low rate of 8s. 2d. per ton at the ovens. The immediate result of Ruhr coke being sold at such a low price has been the depression of the price of Silesian coke and the favoring of the Bohemian blast-furnace industry. It was doubtless owing to the revelations made in connection with this action that the Cologne Imperial Railway authorities cancelled the exceptional rates for the transport of coke to Kladno and Koniginhof, and higher railway charges were introduced for the conveyance of this article at the end of September. Let the reader imagine the consternation of home consumers on finding that coke for export purposes has been regularly disposed of at half the price charged to them. Whether the disclosures in regard to the above can have had any effect upon the Prussion railway authorities is not quite clear, but they administered a gentle snub to the coke syndicate by placing an order for 40,000 tons of coke with firms not connected with the syndicate at the price of 18s. per ton. The coke syndicate even offered to accept the contract at 17s., but this was received too late to be entertained. The order is not a particularly large one, but the fact of its having been lost by the syndicate will not be without its effect.

A BIG PLAN FOR GEORGIA FARMERS.

The more the plan of the great stock company incorporated in London, England, last September to operate in Georgia is studied, the greater appear the possibilities for good to Georgia if the plan is carried out successfully. It is understood that this success does not depend upon a single share of stock being placed in Georgia, but principally upon the hearty co-operation of the farmers of that State. Broadly sketched, the objects of the organization, the British & Southern States Cattle Abbatoir & Produce Co., Ltd., are to carry on the business of land-owners, cattle farmers, breeders and exporters to the United Kingdom and elsewhere of cattle, live-stock, poultry, eggs, cheese, butter, fruit and vegetables, either fresh or canned, and other natural produce, and to engage in such undertakings in connection with that business as may be necessary. These will include the erection of slaughter-houses, canneries, cold-storage plants, warehouses, factories, stables and other buildings required for slaughtering, tanning, preserving meat, manufacture of meat extracts and the handling economically of by-products.

The representatives in this country of the company are Dr. John A. Harriss and Col. H. J. Lamar of Macon, Ga. Colonel Lamar writes to the Manufacturers' Record that the company's success will depend upon the farmers, fruit-growers and cattle-raisers of Georgia, and that their vital interest in its success is indicated by his elaboration of the plans of his company. It proposes to locate in different sections of the State collecting or concentrating stations, where the farmers, fruit-growers, gardeners, cattle-raisers, etc., may bring their products in such quantities as they see fit and receive at once therefor the cash value of same. In this way will be made a ready and close-by market for all such things.

The company will run a separate and distinct line of steamboats from Savannah and Brunswick to Liverpool, Southampton and other ports. On their return trips these boats will bring to the South Atlantic States a superior class of immigrants, and many men with money to invest in lands and who will engage in various enterprises. This will not only create an increased demand for lands, and therefore an enhanced value, but will aid in solving the labor question for farmers, eventually solving the negro problem.

The company will also bring into Georgia and other adjoining States a superior breed of cattle, as the Devon, Herefords, etc., Berkshire and Poland-China hogs, Southdown and other fine sheep, which will be used by the farmers in breeding much superior grades of animals than are now raised.

Expert gardeners, fruit and grape growers will be brought over and employed by the company, and in giving object-lessons in conducting such enterprises to the best advantage. This is proposed to be done at all the company's collecting stations, and will be of vast benefit to the people, in that it will in effect give them small experiment stations all over the State without cost to the State.

The company intends to introduce in the United Kingdom and elsewhere the Georgia cane syrup, made in the proper manner and neatly canned, as it believes it will meet with a ready sale across the waters and bring to Georgia farmers thousands of dollars more than they now receive.

The company will also endeavor to introduce the yam potato abroad, as well as many other things which the South produces, and for which there is not a market, but for which there should be a market.

FOR A GREAT COPPER SMELTER.

Sir Christopher Furness Investigating New Orleans' Advantages.

Sir Christopher Furness, a member of Parliament, the great English shipowner and shipbuilder, and one of the most progressive capitalists of Great Britain, made his first visit to New Orleans for the purpose of inspecting the port and studying its advantages as a site for a large smelting plant for the reduction and refining of copper ores and other minerals. Though he has not already determined positively about the establishment of this plant, Sir Christopher, in an interview in the Picayune, spoke on that subject and on others. He said:

"It seems to me that this is the ideal spot for a great smelting plant. Copper matte of about 50 per cent. fineness is shipped from the mines in the West and in Mexico and through this port to Perth Amboy to be smelted, and the copper is shipped back to this country. This seems to be a ridiculous waste of time and money.

"If one question were decided to my satisfaction tonight, I would make up my mind right now to build one of the largest smelters in the world right here.

"My experts reported that there was danger that I might be subjected here to suits for damages to crops in the immediate vicinity of the smelter, by reason of the fumes that are generated in the processes. That was one of the matters that I had to look into, and I am very favorably impressed. In every way I am decided, and that alone remains to be determined. If I could be assured that I would not be so bothered, I would say right now it is a go.

"Every interest points to the erection of a great smelter here, and I am anxious to do so. I believe that the whole demand of the Mississippi valley should be supplied from this point, and that demand exceeds the demand that could be supplied from any other one port with that taken away. Now it is supplied from Perth Amboy and in a small way from the West, but it undoubtedly should be supplied from this point.

"I have looked into the matter from a standpoint of the business that could be done, and there is no doubt of its success, yet there remains the annoyance of suits by agriculturists in the neighborhood, and that alone prevents me now from deciding.

"We have a smelter at Keswick, Cal., which is situated near some farms, and we are continually annoyed by these petty suits. We have another at Port Koster, where there are no agriculturists to be damaged, and there we have no trouble whatever.

"The two smelters on the Pacific coast were made possible by the demand for copper on the Pacific. 'Frisco used, the year I made my investigation there, 5,800,000 pounds of copper in her industries and constructions, and every pound of it came from Perth Amboy, after having been carried there in the shape of matte from within a few miles of where it was finally used. This terrible waste of time and money and energy should be stopped, and it will be in some way. It is still going on, and the whole Mississippi river valley is getting its copper with a large impost on its cost by unnecessary freightage.

"I wish some of the good men here who know the conditions would let me know whether we would be assured of immunity from damage suits of the nature I mention, and if they would, I could say positively and at once that the smelter would be built. Otherwise I must look into the matter and decide for myself, which might take some time."

Sir Christopher was enthusiastic in his praise of the harbor, and could not say enough about the matchless facilities that he had seen and the impression that they had made upon him.

"Do you think that these facilities are being developed along the proper lines?" asked the reporter.

"Yes and no," was the reply. "I think that in some ways they are. The Illinois Central is doing a magnificent work for the development of the port, and has some very fine terminals. With the development of these along the lines indicated there ought to be a great advance. There are other points where development is proceeding on right lines, but there are some others where there might be reasonable objections, judging from the short explanations that I was enabled to get and understand today.

"There is one thing that is most favorable, and that is the immense amount of room that you have and the splendid front presented for the encouragement of future development. It is magnificent, and far in excess of anything that I thought possible here."

"What do you think of the possibilities of this port for shipbuilding?"

"Magnificent," exclaimed Sir Christopher, without hesitation. "I have seen today two or three sites that are as good as any in the world. They are the finest that I have ever seen in a natural condition. Then the facility with which steel from Birmingham could be placed in the yards would give them superior advantages over any in this country for convenience, and everything that goes to make up the differences between advantage and disadvantage."

"Aside from the physical advantages of levee sites and easy access to good water, what do you think of the port as a port for shipbuilding enterprise?" asked the reporter.

"As good as any in the country," he said, emphatically.

"If I wanted to start a shipyard here, all I would want is $750,000, and with that I would put up as complete a yard and plant as could be put up, leaving out a floating dock, of course, and confining the plant to the actual machinery and works necessary to build the finest ships and equip them for commercial purposes. I would not want a better site for a shipyard, both from a commercial point of view and from a consideration of the physical advantages of the port itself.

"I do not expect to go into shipbuilding here nor anywhere else, except as I am now already engaged. I have been in it for thirty years, and after that many years of pretty hard work I do not see that there is anything that would induce me to make an extension in that line of business.

"The future of New Orleans is a very interesting thing to contemplate at present. I was surprised and greatly pleased to see the country through which I have passed today coming this way. I looked off the train at Beaumont and saw the immense oil development going on there. It seems that this is the greatest thing for this section of the country imaginable. Its possibilities for industrial development are unlimited, and should be made available for the erection of this section into the greatest of the country in the course of time. This may sound a little overdrawn, but the possibilities are enormous and cannot be estimated fully at present."

A BIRMINGHAM YEAR.

Facts Set Forth by That City's Commercial Club.

The Commercial Club of Birmingham, Ala., of which Mr. J. B. Gibson is secretary, has issued a pamphlet of twenty-four pages setting forth facts about Birmingham and its resources of value to the investor and to everyone interested in the material advance of that flourishing Southern community and its immediate surroundings. An excellent indication of conditions there is had in the following summary of developments during one year:

"During twelve months, ending May 1, 1901, new corporations have been organized to do business in Jefferson county with a combined capital of $2,899,750. Old companies have added to their capital $2,520,000. Nineteen hundred new buildings have been erected at a cost of $2,212,000. One hundred miles of new railroad have been built at a cost of $1,800,000. Permanent improvements, enlargements and additions have been made to plants already in operation amounting to $3,587,418, making a grand total for the year of $13,587,418.

"There were over 5000 transfers of real estate recorded for the county during twelve months ending May 1, 1901, having a total consideration of $4,000,000.

"The volume of business done during the past twelve months in mining and manufacturing amounted to $50,000,000.

"The volume of business done in the general wholesale and retail trade amounted to $27,000,000, giving a total for the year of $77,000,000.

"There are assembled in and about Birmingham many of the best men and women from every section of our common country. It has, therefore, as grand a people as were ever set adrift on the tide of time. They are law-abiding and God-fearing, and have time from the rush of work to devote to the intellectual, religious and social side of life. They have built more than 100 houses of worship, and have provided the best equipment for the education of children of all classes. They have provided club-houses, parks and grounds for exercise, recreation and amusement. They have built hospitals, orphanages and mercy homes, which give relief to those who are unfortunate and oppressed.

"These things accomplished in so short a time and in a county originally considered one of the poorest and most backward in the State are but a promise of the larger things to follow.

"On the top of Red mountain near the city of Birmingham one can stand on a vein of iron ore twenty-four feet thick and see the great Warrior coal fields on the one side and the Coosa and Cahaba on the other, with limestone enough in the valleys to flux the ore of the whole world, while above them corn and cotton are growing in abundance, a sight to be seen nowhere else on the globe. There is such a wealth of raw material in this wonderful district as to warrant the statement that the manufacture of iron and steel is only begun. There are already in prospect several additional blast furnaces, the enlargement of one steel plant and the building of two others. Three new trunk lines of railroad are projected, which will add to the shipping facilities and open up a new territory hitherto undeveloped. A number of new coal mines are being opened, which will largely increase the output for the current year. A mammoth car works is being built for the manufacture of pressed-steel cars. The improvement of the Warrior and Coosa rivers will make is possible to send coal to tidewater cheaper than it has ever been known. When the Nicaragua canal is built Alabama coal will supply the steamships of the world, and her iron, steel, timber and labor will build them. From every standpoint there is encouragement. To men of spirit and ambition there is that promise and inspiration which guarantee success. To a courageous and self-reliant people there is the assurance that the natural resources of the district, if properly utilized, will make it one of the richest, most populous and prosperous sections on the globe."

Mr. Nathaniel Baxter's Plans.

Mr. Nathaniel Baxter, Jr., has resigned the presidency of the Tennessee Coal, Iron & Railroad Co., taking effect December 1, to become the president of the Cumberland Coal & Coke Co. of Tennessee. The company's property is on the line of the Tennessee Central Railroad, of which Mr. Jere Baxter is president. Referring to the offer of the presidency of the company, Mr. Baxter is quoted in the Birmingham News as follows:

"The company has recently acquired all the coal mines and mineral property of the Crawford Coal & Iron Co. The holdings of the Cumberland Company are about 345,000 acres of coal lands, with eight large coal mines now in operation. I was permitted to acquire a large interest in the company on my own terms."

During the first ten months of the year 1,254,596 tons of pig-iron and 139,391 tons of cast-iron pipe were shipped from the Alabama and Tennessee fields, the movement from the Birmingham district proper having been 662,127 tons of pig-iron and 68,035 tons of pipe. The export shipments of pig-iron from the South were 21,236 tons.

A party of 120 real-estate men from Illinois, Iowa, Indiana, South Dakota and Kentucky, under the escort of Capt. J. F. Merry, assistant general passenger agent of the Illinois Central Railroad, has been making during the week a tour of the lines of that road in the South.

OIL INTERESTS MAY BE UNITED.

Interesting Developments in the Beaumont Oil Field.

[Special Cor. Manufacturers' Record.]
Beaumont, Texas, November 23.

During the week it has become known that the Higgins Oil & Fuel Co. has sold either a large stock interest or a controlling interest to investors who have not heretofore been in the field. There was a rumor that the Houston Oil Co. had bought the controlling interest in the Higgins and other oil companies. Mr. Kirby, in an interview published in a local paper yesterday, denies that he or the Houston Oil Co. has done what is claimed, but the denial is couched in such language as to lead one to the supposition that while Mr. Kirby and the Houston Oil Co. have not officially done so, yet financial interests directly connected with these interests of his have done so, and therefore, if this be true, it will be an easy matter afterward for the Houston Oil Co. to acquire what these capitalists have secured. Mr. Kirby's denial is as follows: "I gave out an interview yesterday denying that the Houston Oil Co. is in anywise interested in the purchase of any of the Spindle Top companies. I am not yet ready to take in this proposition. I believe, however, that some of my friends in New York have been purchasing rather heavily in some of the companies here; in fact, the Higgins Oil & Fuel Co. has recently disposed of its treasury stock to a New York capitalist, and it is possible that some capital is buying stock in other companies on Spindle Top. At any rate, I am not in any manner interested in these transactions." The capitalist referred to by Mr. Kirby is undoubtedly Mr. Pat Calhoun of New York, who is quite a factor in the Houston Oil Co. and also the Kirby Lumber Co. It is appropriate to remark here that some of the lumber properties acquired by the Kirby Lumber Co. were secured through the intervention of third parties, and possibly the Houston Oil Co., not yet being ready to undertake this business, the same plan is being pursued by the financial interests to secure control of some of the Spindle Top property. It is quite generally the impression that $66 per share is the price paid for the Higgins stock. Parties in New York have recently conferred at length with some of the principal officers of the Higgins Oil & Fuel Co., who went there for that purpose. It will be noted that Mr. Kirby in his denial referred to the possibility of other capital buying heavily in other companies. This is true, as far as can be learned. It being granted that consolidation of the oil interests on the Spindle Top property cannot be accomplished by the ordinary methods, it is more than likely that this plan of absolutely buying out one or two good concerns and then several of the smaller ones will be pursued. The State anti-trust law operates to prevent the combination of the oil interests so long as they retain their individuality, but does not prevent the absolute purchase of other companies.

A competitive test of oil and coal as fuel for locomotives has been made by the International & Great Northern Railway Co. of this State. The company took two of its 10-wheel, 83-ton (on drivers) engines, used exclusively in the freight service, and operated them on the Houston-Palestine division, 150 miles in length, giving each engine exactly the same number of cars and the same tonnage for each trip, as near as was practicable; they were further operated on similar conditions in every respect. The coal-burner, engine No. 206, was equipped with every known improvement for burning coal economically, such as patent fire-doors, etc. Both engines during the test made 3322 miles. Engine No. 206, burning coal, consumed 182 tons, at a cost of $2.71 per ton, or a cost per mile of 14.87 cents; miles run per ton of coal, 18.22. Engine 215, of the same pattern and weight exactly, running on oil, made the same mileage, consuming 705 barrels of oil, at a cost of 54¾ cents per barrel (this is the grand cost, including handling, storage, etc.), or, say, 11.63 cents per mile; miles run per barrel, 4.71. It will be seen that the difference in favor of oil is 21.8 per cent. One-hundred-mile run on coal cost $14.87, while a similar run on oil cost $11.63, or a saving of $3.24 per 100 miles.

The result of another test which has just been published is interesting. This test was made by Charles Clarke & Co., operators of dredgeboats in the Gulf of Mexico. The following figures are the result of one month's test under normal conditions: Coal per month, $9500. Oil, $1250; transportation, $450; storage barge, $3500. Here is a different in cost in favor of oil of $4300; saving in firemen, etc., $700; total saving in favor of oil, $5000. It must be borne in mind that the cost of the storage barge is charged to this month's expenses, whereas there will not be this charge in the future, so that their saving on a boiler capacity of 3050 horse-power will be in the neighborhood of $8000 per month on a total fuel bill on the basis of coal of nearly $10,000. This is a remarkable showing, the most marvelous set of figures that has yet come to light, but it is vouched for by Capt. Charles Clarke, and there is little doubt but what it is approximately correct. In this case they barge the oil direct from the pipe line and buy it very cheaply from some of the smaller companies, so that they save wonderfully in the cost of transportation, as well as in first cost of fuel.

The rail shipments of oil up to date total 275,000 barrels, which, with 60,000 sent out by water, make the total shipments for the month 335,000 barrels. However, this would have been materially increased could railroad equipment have been secured. The shortage of cars is a very serious matter. There appears to be only one remedy for this condition, and that is for each oil company to buy its own cars. The railroads cannot be expected to have an abundant equipment for this oil in so short a time. It is noticeable that the stocks of the legitimate companies are becoming stronger gradually.

Mr. C. F. Lufkin of the Standard Oil Co. paid Beaumont a visit during the past week. Mr. Lufkin stated he was here seeking general information as to the condition of the field.

There are no new developments at Sour Lake. At Jennings they are endeavoring to make that well a pumper, which they believe can be profitably done. Work is soon to begin on a new well close to the old one, which they hope to bring in a gusher. There is no doubt of the oil being there, if they can only obviate the quicksand difficulty. The Hooks well at Saratoga is also suffering from quicksand. This well is flowing daily an estimated flow equal to 150 barrels, and it is claimed if the quicksand could be overcome a good well would result. The Texas Oil Fields, Limited, of London, England, which owns in fee-simple some 20,000 acres a few miles southwest of Beaumont, has gone into the work of developing its land in earnest. One well is down over 600 feet. The Texas Oil Fields, Limited, is the English syndicate which purchased the White ranch during the early days of the oil boom.

Big Contract for Richmond.

Among the contracts closed last week for oil-tank steamers by the Standard Oil Co. was one awarded to the William R. Trigg Shipbuilding Co. of Richmond, Va., for a vessels to cost $429,500. This is to have a total displacement of 9000 tons, will be 370 feet over all, 50 feet beam, 28½ feet depth, and an oil capacity of 1,500,000 gallons. The vessel is to be launched within one year from the time the keel is laid. Vice-President Myers of the Trigg Shipbuilding Company, in an interview in the Richmond Times, is quoted as follows:

"This vessel will be larger than the cruiser Galveston, which is now in course of construction in our yards, and will be by far the largest craft of the kind we have ever attempted. It will not be necessary for us to increase our working force for the construction of this vessel, as we now have about 1400 men at work, and are constantly adding to this force."

For the construction of this vessel many tons of steel and special material will be needed, and this has already been ordered. Work has begun in the joining shop, and work in every other department will be taken up immediately. It is expected that the keel will be laid within a few weeks, and there is no doubt that she will be ready for launching on contract time.

Large Orders for Oil Cars.

The Equitable Land & Oil Co. of St. Louis, in a letter to the Manufacturers' Record referring to a statement published that that company had just placed an order for 500 oil-tank cars, states that this is their second order, and says:

"Thirty days ago we placed an order with the American Car & Foundry Co. of this city for 500 tank cars with a capacity of 200 barrels each, and since then, by reason of a large and increasing demand on us for fuel oil, it has been necessary for us to duplicate this order, and now we have under construction 1000 cars, the last 500 being of the most improved type, and with the largest capacity of any cars ever built. They are what is known as the new Vanderbilt tank car, and have a carrying capacity of 300 barrels each.

"Arrangements are now being perfected with the railroad companies whereby these cars will be run in solid trains between Beaumont and this city. Our first allotment of fifty cars will be completed within the next ten or fifteen days. Our entire first order will be completed not later than February 15. Delivery will begin on our second order about February 15, and will be completed by April 1.

"We flatter ourselves that these are the largest single orders ever placed for tank cars by any company in the United States."

Oil, Gas and Salt.

Mr. C. F. Z. Caracristi, C. E., E. M., in a report on the properties in Lafayette and St. Martin parishes, Louisiana, of the Anse La Butte Oil & Mineral Co., Ltd., presents elaborate facts about the geology of that section, makes practical suggestions as to the best methods of developing the oil, gas and salt resources, and says that he is convinced that petroleum and gas do exist in large quantities, and that the large salt deposits will create a market for these elements as fuel. He adds:

"The high grade of the natural gas found on your property, as well as the chemical composition of the petroleum from the oozes found to the southeast, justifies me in stating that the oil is very similar to that of Navarro county, Texas, and while I do not feel that you will find oil in the gusher form, you will unquestionably find good pumping wells that invariably form the world's petroleum supply.

"Again, it must be remembered that the light gravity petroleums command a far greater price in the oil markets than the heavy gravity fuel oils of doubtful durability and composition.

"The value of your salt proposition will be appreciated when I state that the salt deposit can readily be estimated to have a minimum workable area of five acres, with a thickness of 300 feet, equal to, approximately, 40,000,000 tons of rock salt."

To Build in Baltimore.

It is stated that the Missouri, Kansas & Pacific Oil Co. has definitely decided to locate at Baltimore, Md., oil-storage tanks. Tanks with a capacity of 380,000 barrels of oil are to be built, also wharves, sheds and other necessary buildings for handling and distributing the oil. Oil is to be brought from Beaumont, Texas, in the company's own tank steamers. In order to present the economical advantages of oil as fuel to manufacturers, the latter will be furnished with free installations of furnaces for burning the oil, and if at the end of six months such installations prove unsatisfactory, the furnaces will be removed without charge. Charles E. Matt of Baltimore is said to be negotiating for site for the plant. Theodore Steigner of Kansas City, Mo., is president of the company.

Oil of Vast Importance.

In a letter to the Manufacturers' Record Mr. John M. Holladay of Holladay, Va., writes:

The discovery of oil in the South must have a great effect on the industries and manufactures of that section, and many of your readers would like to see special attention given to that subject. I have read with much interest the articles from Caracristi and others on the Texas and Louisiana discoveries, and I hope to see the subject treated at great length and every week, just as some other topics of less importance, and already the developments in oil are destined to play so enormous a part in the future of the South that they should be given a place of importance."

OIL NOTES.

Facts About Petroleum and Its Uses.

A dispatch from Birmingham says that experiments with crude oil from Beaumont are being made at the Ensley steel plant of the Tennessee Coal, Iron & Railroad Co. with a view to determining its availability as fuel in the manufacture of steel.

Efforts to secure a Northern market for Texas oil have resulted in the formation of the Beaumont Oil Transportation Co., which, it is understood, has secured five vessels in New York to be used for transporting the oil from Galveston and Port Arthur to points along the North Atlantic coast. The vessels are estimated to have a capacity of 30,000 barrels each.

It is announced in a dispatch from Orange, Texas, that the Forward Oil Producing Co. of Texas and the Forward Reduction Co. of Cleveland, Ohio, will establish at Orange a big refining and reduction plant, and will connect the plant by pipe line with the Beaumont oil fields. The company plans to build a series of iron tanks of 50,000 gallons capacity each, capable of accommodating 25,000,000 gallons of oil, and the buildings connected with the refinery will occupy 200 acres of land. The refinery will employ from 800 to 1000 men.

Harbor-Front Improvements.

The Hazard Wharf Co., which is making important improvements upon its seven acres of water-front property recently acquired at the foot of Eleventh street, Canton, has succeeded in inducing the Baltimore & Ohio Railroad and the Northern Central Railway to connect the wharf property by sidings with their freight-yards at Canton. When the improvements are completed there will be 1146 feet of water-front improved by wharves, which will insure protection to vessels lying alongside from almost any kind of weather. A covered building beginning at the water with a width of 600 feet and running 200 feet in shore is being erected. It will have a truss roof about twenty-eight feet high. The object of this improvement is to make provision for the handling of export and import rough storage, principally logs, lumber and other articles which are shipped crude there. The company, which is incorporated under the laws of Maryland, has the following officers: Richard Dallam, president; Edward L. Gernand, vice-president; Henry C. Kelsey, secretary; John A. Evans, treasurer. Mr. A. R. Hancock, who has been many years in the warehouse and storage business, is general manager of the concern.

To Make Window Glass.

The Chattanooga Glass & Bottle Manufacturing Co., capitalized at $50,000, contemplates building a plant for producing daily several tons of window and plate glass. The factory just completed has a daily capacity of twelve tons of glass, or 48,000 pint glass bottles every twenty-four hours. The plant is now running day and night, however, a small force only being employed, to be increased to about 160 men as soon as new operatives can be trained for the work.

A Southern Tube Plant.

The rolling mill of the tube plant at Helena, near Birmingham, Ala., of the Alabama Tube & Iron Co. has commenced operation, the guide mills are to start this week, and by the middle of December the tube department proper will be producing. From 200 to 250 men will be employed. F. L. Clark, an operator of some years' experience in the Pittsburg (Pa.) mills, is interested in the new plant.

The Merchants and Miners' Transportation Co.'s steamers are now leaving Baltimore for Providence, R. I., every Monday, Thursday and Saturday, instead of Monday, Wednesday and Friday, as heretofore. The company's steamers are now leaving Baltimore for Norfolk and Newport News daily, including Sunday, except Wednesday.

The new large dry-dock of the William Skinner & Sons' Shipbuilding & Dry-Dock Co. at Baltimore, which is 628 feet long, and capable of docking any vessel of 600 feet length, 70 feet beam and draft of 22½ feet, was formally opened on Monday.

There was loaded last week at Pensacola, Fla., a cargo of about 16,000 bales of cotton.

Managers of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises and needing machinery or supplies of any kind will find it profitable to consult the advertising columns of the Manufacturers' Record. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

FOUR HUNDRED MILES.

New Southwestern Line of Chicago, Rock Island & Pacific Nearly Completed.

The extension being constructed for the Chicago, Rock Island & Pacific Railroad in the Southwest will be open for train service, it is expected, by February 1 of next year. It is one of the most extensive projects yet planned and let to contract in the United States, the new mileage being built from Liberal, in Southwest Kansas, to Carrizosco, N. M., a distance of about 400 miles. At this point a connection is made with the El Paso & Northeastern Railroad, terminating at El Paso, Texas, where connection is made with the Mexican Central system. The road from Liberal to Santa Rosa, N. M., 264 miles, is being constructed by the Chicago, Rock Island & Pacific Company, and the balance of the mileage by the El Paso & Northeastern Company. Work on the northern section is completed to a point within fifty miles of Santa Rosa, which, it is calculated, will be reached by January 1, as track is being laid at the rate of two to two and one-half miles daily. About seventy-five miles of the El Paso & Northeastern extension are completed.

The claim is made for this extension that it includes the longest "air line" of railroad in the United States—a stretch of track 128 miles in length, which has been surveyed as straight as an arrow flies. The work includes a number of large bridges, one across the Canadian river being 770 feet in length and no less than 130 feet in height. With the completion of road a new route will be formed between Chicago and El Paso, which will be 1471 miles in length. The new mileage traverses timber and grazing lands, as well as a country which has a variety of mineral resources.

Another Line for New Orleans.

A plan which, if carried out, will give New Orleans another railroad connection with the North is that being promoted by the New Orleans & Mississippi Midland Railroad Co., recently chartered in Louisiana with $2,000,000 capital stock. The company proposes building from New Orleans to Pontotoc, in Northern Mississippi, by way of Mandeville, Covington, Monticello, Carthage and Houston. The line will cross Lake Pontchartrain by bridge and trestle-work, and it is understood will be 340 miles in length. A dispatch from New Orleans states that surveys have been completed for a portion of the route. The officers of the company are Percy L. McCay, president; Robert P. Duncan and S. E. Babington, vice-presidents; G. Lehman, Jr., secretary and treasurer. The majority of the parties interested are of New Orleans. At Pontotoc connection would be made with the Gulf & Chicago Railroad, which is in operation between Middleton and Pontotoc, a distance of sixty-two miles. This road connects with the Kansas City, Fort Scott & Memphis division of the St. Louis & San Francisco Railroad, thus completing a route to St. Louis and Kansas City.

An Important Connection.

A dispatch from St. Louis is to the effect that the St. Louis Southwestern and the Chicago & Eastern Illinois railroads will form a physical connection by the construction of a bridge across the Mississippi river at Thebes, Ill., with the necessary approaches. At present cars

are interchanged by a ferry across the river, but it is believed that an all-rail connection will be much more satisfactory. By the construction of this bridge a new system will be formed connecting Chicago with the Southwest. It is probable that the Missouri Pacific and possibly the Illinois Central will use the bridge, which it is estimated will be about one-half mile in length, with approaches on either side aggregating two miles.

New Line to Dallas.

In a letter to the Manufacturers' Record Mr. A. B. Wilgus of Dallas, Texas, president of the Dallas & New Mexico Railroad Co., writes that it is expected to build this road at once with a view to having it in operation by April 1. The company secured about sixty miles of graded right of way between Letot and Boyd, Texas, and has also obtained a franchise to build within the city limits. Surveys are now completed, and Mr. Wilgus states that contracts will be let within the next sixty days. The total length of the line will be seventy-five miles. John T. Witt is chief engineer of the company.

Atlantic Coast Line Meetings.

At the annual meeting of the railroads forming the Atlantic Coast Line system in South Carolina the present general officers and directors were re-elected. Extensive improvements have been made to the Charleston & Western Carolina, as well as other lines. Earnings increased during the year. The Atlantic Coast Line Co. of North Carolina re-elected its officers. During the year the increase in gross earnings was $200,000. Ten thousand tons of steel rails were purchased. Including this outlay and expenses for other improvements, the company disbursed $700,000 during the year.

Sites for Industries.

In a letter to the Manufacturers' Record Mr. W. B. Emmert, general freight agent of the Virginia & Southwestern Railway Co., calls attention to the opportunities to engage in lumber and other industries upon this route. A number of extensive tracts of timber land are adjacent to the line. Among the industries which Mr. Emmert specifies are tanneries, vehicle factories, furniture factories and plants for making staves and heading, hemlock extract and box material. The Virginia & Southwestern Railway has connections which enable manufacturers on its route to reach a wide market.

Improving the Road.

According to a statement of Mr. B. H. Paine, general passenger agent of the Missouri Pacific system, the roadbed of this line between Little Rock and Texarkana is being practically rebuilt and relaid with heavier rails, grades are being reduced and curves eliminated with a view of maintaining a fast train schedule into St. Louis and points in Texas. It is expected to operate express trains between St. Louis and San Antonio in twenty-six hours, a reduction of five hours from the present time.

Central of Alabama.

The Central of Alabama Railroad Co., which proposes building from Decatur to Jasper and Tuscaloosa, Ala., has secured the support of the business men of the towns mentioned, and right of way and subscriptions to the capital stock of the company have been made. It is stated that enough of the stock has been placed to induce the building of the line, which is being promoted by a company of which John Carlisle of Cincinnati is at the head.

Immigration Southward.

According to a statement of Mr. S. F. B. Morse, assistant traffic manager of the Southern Pacific system, a very aggressive policy is to be carried out by this company during the next year in inducing immigration to the South and Southwest. The office of the general immigration agent for Louisiana and Texas has been created, with headquarters at Chicago, and the company intends to advertise the resources of the South and Southwest on a very elaborate scale.

Kansas City, Mexico & Orient.

Advices have been received in Boston, where a large block of the securities of the Kansas City, Mexico & Orient Railroad are held, that practically all of the stock of the line has been placed in this country and abroad. It is stated that about $1,000,000 worth has been sold in Boston alone. An English finance committee has been formed, with C. H. Sanders as chairman.

Railroad Notes.

The Johnson Iron Works of New Orleans is completing a large tugboat for the Southern Pacific Railway which will be used on the Mississippi river.

The Mobile & Ohio Railroad Co. is receiving 900 freight cars ordered for its miscellaneous traffic. They are being delivered as rapidly as finished at the shops.

In addition to orders for rolling stock already noted in the Manufacturers' Record, the Southern Railway Co. has decided to add 1200 box-cars to its equipment, which will be completed as soon as possible.

A dispatch from Richmond, Va., states that the Richmond & Petersburg Electric Railroad, nearly completed between the towns mentioned, will use the tracks of the Richmond Passenger & Power Co. in Richmond.

A dispatch from Knoxville, Tenn., states that arrangements to transfer the Knoxville Street Railroad to the Railways & Light Co. of America have been completed. Mr. R. Lancaster Williams has been elected president of the road.

According to a dispatch from Denison, Texas, the Missouri, Kansas & Texas Railroad Co. has secured control of the Denison, Bonham & New Orleans Railroad, recently completed between Denison and Bonham, a distance of twenty-eight miles.

The results of the annual inspection of the Illinois Central system were prizes given to H. D. Wallace and Patrick Galvin of the Louisville division for keeping their section of the railway in the best condition. This includes 230 miles of line between Louisville and Paducah, Ky.

The Louisville & Nashville Railroad Co. has secured the necessary right of way in Pensacola to build additional tracks to its wharf property, and it is understood that it will immediately carry out plans which have been decided upon. The improvements will represent an outlay, it is stated, of nearly $300,000.

A dispatch from Savannah, Ga., is to the effect that the Edison Electric Illuminating Co. has secured the control of the Savannah, Thunderbolt & Isle of Hope Railway in the suburbs, and will operate it after January 1. It is reported that the company is now in control of all of the street-car lines in the city and suburbs.

The Nashville, Chattanooga & St. Louis Railway Co., it is announced, has decided to build an inclined railroad at Hickman, Ky., with a view to ferrying its freight cars across the Mississippi river at this point. By means of the incline cars will be moved directly upon ferry-boats and the freight thus transferred without breaking the bulk.

Brainard Tolles of New York, attorney for a syndicate of bondholders, has purchased the railroads comprised in the system of the Washington Traction & Electric Co. at the price fixed upon by the court—$5,000,000. The lines represented in the transfer comprise the Metropolitan Railroad system, the Columbia Railway, the Anacostia & Potomac Railway, the Georgetown & Tennallytown Railway and several other roads extending to points in the suburbs of Washington.

More Bay Steamers.

Several additional steamboats for use on the Chesapeake bay and its tributaries will be completed within the next year. The steamship Calvert being constructed by the Neafy & Levy Shipbuilding Co. of Philadelphia for the Weems Line of Baltimore is nearly ready for launching. The Calvert is 190 feet long, 40 feet beam, and will have three decks, including accommodations for first and second class passengers.

The Baltimore Steam Packet Co. will probably award the contract in the near future for an additional vessel to go on the route between Baltimore and Old Point Comfort, Norfolk and Portsmouth. It is understood that the specifications call for a boat which will be equal in speed, design and appointments to the Alabama, which is the finest vessel of its fleet.

The Baltimore Dry-Dock Co. has made a contract with the Queen Anne Railroad Co. to build a steamer for service between Baltimore and Love Point. The cost of the boat, it is reported, will be $125,000. The steamer will be 210 feet in length, 32 feet beam, and is expected to have a speed of seventeen miles an hour. It will be provided with a large dining-room, as well as staterooms. It will be operated in connection with the service of the Queen Anne Railroad.

Trade With South America.

R. A. Watson of New York, representing the Brazilian Steamship Co., has recently been in St. Louis with a view to securing traffic for the line of vessels which his corporation proposes operating between New Orleans and Mobile and South American ports. It is expected that two steamships will be placed on the line in February next, the fleet to be increased as business demands. It is believed that a considerable quantity of freight hitherto sent to South America out of New York will be shipped to the Southern seaports from St. Louis and Kansas City, as the new route will be much shorter.

Bridge Contract in Africa.

An indication of the opportunity for American trade in Africa is shown by a recent contract secured by the American Bridge Co. to build twenty steel bridges along the route of the Uganda Railroad in East Africa. The contract was awarded in competition with a number of European companies, but the American corporation offered not only the lowest estimate, but guaranteed to complete the structures in less time than its competitors. The contract represents about $1,000,000.

Erik G. Edlund of Stockholm writes to the Manufacturers' Record inquiring the names of manufacturers of coal-handling machinery, and also asking for catalogues, etc., of manufacturers of all kinds of hoisting and conveying machinery, such as lifts, cranes, conveyors, capstans, elevators, etc.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

The Mollohon Mill.

A charter has been granted to the Mollohon Manufacturing Co. of Newberry, S. C., with capital stock of $200,000 and the following officers: President and treasurer, Geo. W. Summer; vice-president and general manager, E. B. Wilbur, and secretary, Z. F. Wright. This enterprise was originally announced last July, and Contractor J. F. Grandy is now at work on the construction of the mill structures and cottages for operatives. The spindles will number 10,000, with looms to match, for manufacturing a grade of goods not heretofore produced in the South, as previously stated. The site of the plant covers a tract of 100 acres, and Messrs. Lockwood, Greene & Co. of Boston are the architects for the company.

Improvements Costing $50,000.

The Cox Manufacturing Co. of Anderson, S. C., writes regarding its improvements lately reported, and states that the new building is an extension 78x100 feet in size, costing about $10,000. In this extension has been installed 3750 spindles (not 2880, as previously given) and other machinery in proportion at a cost of about $40,000; spindleage until now was 3120. This considerable improvement increases the mill's production to 2500 pounds of yarn daily, requiring fifty additional employes. The product is 40s single and two-ply skeins and warps.

Installing a Bleachery.

The Oxford Knitting Mills of Barnesville, Ga., is now installing the bleaching plant recently reported as to be added to the mill. This company writes that the cost of its bleachery will be about $3000 and its capacity 2000 pounds per day. The company also states that its product is sold ahead for the next six months, being disposed of through a New York firm. A considerable quantity of ribbed underwear, the mill's product, is also shipped to South America, Cuba and Australia. Plant has forty knitting machines and full complement.

The Cotton Movement.

In his report for November 22 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during eighty-three days of the season was 5,294,850 bales, a decrease under the same period last year of 53,120; the exports were 2,184,988 bales, an increase of 76,091; takings by Northern spinners 588,911 bales, a decrease of 30,148; by Southern spinners 467,643 bales, an increase of 81,962.

Textile Notes.

D. Y. Cooper of Henderson, N. C., has purchased a controlling interest in the Ettrick Manufacturing Co., operating a cotton mill of 9184 spindles and 262 looms at Petersburg, Va.

It is proposed at Houston, Texas, to organize a company, with capital stock of $50,000, for establishing a mill to manufacture woolen yarns and cloth. The Business League is furthering the enterprise.

It is proposed at Abbeville, S. C., to organize a company for the erection of another cotton factory in that town. A spinning plant is in contemplation. P. Rosenberg is interested in the enterprise.

The Hawkinsville (Ga.) Cotton Mills has been finally completed, after several months' delay in receiving the machinery. Operations have been commenced, producing 8s to 24s cotton yarns, with 3000 to 5000 spindles as equipment. Capital is $50,000.

W. Scott Harvin of Manning, S. C., states that the report is true he will improve his knitting mill, now running ninety machines. However, the improvement will merely be adding a factory for making boxes in which to make shipments of product.

The court has ordered the sale of the Gwinnett Cotton Mills on the application of creditors. This $100,000 plant is located at Lawrenceville, Ga., and has 4300 mule spindles for manufacturing yarns. The indebtedness is $60,000. Sale will be held January 4.

Jonesboro (N. C.) Cotton Mill has amended charter, changing name to the Eugenia Manufacturing Co., with David Clark of Charlotte, president; W. A. Graham Clark of Jonesboro, general manager and treasurer. New machinery has been added recently, and more will be added.

Hamburger Cotton Mills' improvements to utilize electrical-power, supplanting steam-power, will cost about $7000. Mention of this change was made last week. This Columbus (Ga.) plant will obtain 350 horse-power through its electrical installation, power to be furnished by the Columbus Power Co.

Arrangements have been closed ordering the equipment of machinery for Hartsville (S. C.) Cotton Mill, that has been under construction. The machinery will be in position and producing fine print cloths by next March. Ten thousand spindles and 300 looms will be the complement. Capitalization is $250,000.

R. F. Lowndes of Clarksburg, W. Va., has decided to rebuild his woolen mill, which was destroyed by fire recently at a loss of $75,000. Arrangements are now being made to contract for the erection of new buildings to cost $25,000, and the equipment of machinery to be installed in them will be of a greater capacity than was the former plant.

Linn Mills Co. of China Grove, N. C., is proceeding with the construction of its mill, and expects to commence operations early next year with 6000 spindles installed. The site includes 100 acres of land, which have been subdivided into perfect squares for building lots, and a town is developing. C. W. Corriher is secretary of company, and capital stock is $50,000.

The Tennessee Manufacturing Co. of Nashville, Tenn., has issued to its stockholders a circular suggesting a reorganization, so that the plant can be modernized as to its equipment. At the company's annual meeting, recently mentioned, the conclusion was reached that such a course as suggested is necessary for profitable operation of the property. This mill has 27,000 ring spindles, 6000 mule spindles and 1018 looms.

Cottonseed-Oil Notes.

It is stated that the capital stock of the Laurinburg Oil Mill at Laurinburg, S. C., will be increased to $50,000. The output of this mill is at present very large, and the entire plant one of the finest in the State.

The Perkins Cottonseed-Oil Mill at Memphis, Tenn., was almost entirely destroyed by fire on the 23d inst. It was one of the largest and most modern in the city. An estimate of the loss and insurance is not given.

The market for cottonseed oil in New York on the 26th inst. was nominally stronger, with a light offering, and few sales reported; crude, tanks, South, 31 to 31½ cents, and in barrels, nominal; prime summer yellow, 36½ to 37 cents; prime summer yellow forward, new crop, 36 to 37 cents; prime winter yellow, 39 to 40 cents.

The following quotations represent exporters' prices for cottonseed products at Galveston, Texas: Prime refined cottonseed oil in barrels, 35 cents, November-December, and prime crude, loose, Texas mills, 26 to 26½ cents, November-December; prime cottonseed cake, $22.50 short ton f. o. b., and prime cottonseed meal, $23, November-December; linters, choice, 3⅝ cents; A, 3¼ cents, and B, 2⅞ cents. Exports for the season are as follows: Oil, 19,823 barrels; cottonseed cake, 318,742 pounds, and cottonseed meal, 1,087,637 pounds.

The following are the official quotations on cottonseed and cottonseed products as posted at the Cotton Exchange in New Orleans on the 25th inst.: Prime refined oil in barrels, 35 cents per gallon; off refined oil in barrels, 34 cents per gallon; prime crude oil, loose, 29 cents per gallon; off do., nominal per gallon; prime cottonseed cake, $26.50 per ton of 2240 pounds; off do., nominal; prime cottonseed meal, $25.50 per ton of 2240 pounds; off do., nominal; soap stock, loose, 1.20 cents per pound; linters, per pound, choice, nominal; A, 3 cents; B, 2½ cents; C, 2 cents; cottonseed in sacks delivered in New Orleans, $13 per ton of 2000 pounds; in bulk delivered in New Orleans, $12 per ton of 2000 pounds.

To Develop 3000 Horse-Power.

Further details concerning the W. T. Weaver Power Co.'s proposed development of power on the French Broad river, announced last week, are given by W. T. Weaver of Asheville, N. C., president of the company. He states that the total cost of the plant will approximate $200,000, and about 3000 horse-power will be available. The dam across the river will be of masonry, 485 feet long, 9 feet 4 inches high; canal will be 3510 feet long; 2550 feet of this distance to be canal embankment and 960 feet to be masonry wall. The installation of machinery will include five 54-inch turbines, driven by horizontal direct connection, to operate under a head of 22 feet 4 inches; also three 750-kilowatt revolving field type three-phase alternators. The power-house is 61 feet 6 inches by 161 feet in size. A mountain stream of pure water flows through the company's 200 acres of land, located on both sides of the river, and an industrial town is expected to develop rapidly after the power is ready for utilization.

The first of the fleet of vessels placed in service between New York, Savannah and Fernandina, Fla., recently arrived at Fernandina with a miscellaneous cargo. The vessels were built on the Great Lakes, and will be used exclusively for freight purposes. Their average tonnage is 2200. It is calculated that the north-bound cargoes will consist principally of lumber.

The Baltimore & Ohio Railroad Co. has gone practically into the work for scientific lumbering by giving its employes at a big convention at Cumberland the opportunity to hear practical talks on forestry by Prof. Gifford Pinchot and Dr. Harman von Schrenck of the bureau of forestry of the national Department of Agriculture.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., November 27.

The occurrence of Thanksgiving Day has lessened the volume of business in the various channels of the local lumber market, but withal business is fairly active, and the demand steady. Receipts of lumber have been lighter than usual, contrary winds delaying the arrival of vessels. The local demand for lumber is good, and boxmakers, builders and others have been buying more freely. North Carolina pine continues to hold its own, and values all along the line show a tendency to advance. Air-dried lumber, as well as kiln-dried, are both having a good run, with sales larger than usual. White pine is steady, with a good demand. There is a good demand for Georgia pine, and prices firm. For all hardwoods the market is steady, with seasoned stock showing an advance in price. Oak, ash, poplar, walnut and other woods are all in better demand. The mills in West Virginia are generally running on full time, and shipments are heavy. The foreign export trade in hardwoods is showing signs of improvement, and shipments of lumber and logs are going forward in better volume. Advices from the United Kingdom and Continent are more favorable, and exporters are in much better spirits under existing conditions. The London Timber Trades Journal of the 14th inst., in reviewing the market, says: "There has been great activity in the mahogany and hardwood trade, the tone of the market being very firm, with a good demand and an advance of a point on minimum prices, and relatively all round. It is now hoped we have turned the corner, and are making progress towards a better state of things than have prevailed all the year, as the wholesale business is generally more cheerful and promising, and although any very great activity in general trade is regarded as too much to expect at present, yet the improved tone of the market will go some way towards making up for past dullness. At the public sales there was a full attendance, with spirited bidding and competition for all descriptions of mahogany, Honduras especially so, large prime logs and figured wood making advanced prices, and small being all cleared at satisfactory rates, some on private terms."

Norfolk.

[From our own Correspondent.]
Norfolk, Va., November 25.

There continues to be a very active movement maintained in all lines of the lumber trade of this port, and the demand is most pronounced, especially for North Carolina pine, which is expected to show considerable activity throughout the winter months. At all the Northern markets the activity in North Carolina pine is most decided, and builders, box factories and other woodworking concerns are all anxious to purchase at present prices and for prompt delivery. Manufacturers and shippers generally are making serious complaints of the scarcity of cars, and many orders at stiff prices have been turned down when specified for November or December delivery. Planing mills in this section are now operating at their full capacity, and have orders in plenty to keep them busy for some time to come. Stocks of lumber at all points in Virginia and Eastern Carolina are considerably reduced, and certain grades are becoming scarce. There is a good local demand for lumber and other building material, and builders and contractors generally are very busy, both throughout the city and suburban points. Freight rates in water shipments are advancing, and a number of charters have been recorded recently. Rates to New York and Sound, $2.50 to $2.75. The schooner James Young was chartered last week to load lumber here for Boston at $3.25. A charter has been granted to the Hampton Roads Creosoting Co., with a capital stock of $150,000. The principal office is to be in Portsmouth. E. A. Buell of Norfolk is president and treasurer, and Percy A. Smith of Berkley is secretary. The Elizabeth City Manufacturing Co. of Elizabeth City, N. C., has recently added to its plant a new planing machine, and will commence operations by the first of January.

Savannah.

[From our own Correspondent.]
Savannah, Ga., November 25.

The lumber market in this section continues to show unusual activity, and the movement in all departments of the trade shows indications of a material increase in business during the month of December. For the week ending the 18th inst. the shipments of lumber from this port amounted to 5,254,366 feet, of which 4,023,545 feet went by sail and 1,230,821 feet by steamers. The shipments during the past week amounted to 2,460,000 feet. The demand from Northern and Eastern ports is active, and the building requirements from these sections promise to be of considerable volume during the next season. The steamship Northtown of the Northwest Steamship Co.'s new line arrived yesterday from Fernandina with a part cargo of 650,000 feet of lumber. She will load about 800,000 feet more at this port to finish her cargo. Up to the present not much has been done in acquiring new business, as the company has guarantees from lumbermen that will keep their steamers going for a few months to come. In the Brunswick section the movement in all classes of lumber during the present month has been very heavy. A large fleet of vessels are at present loading at the port of Brunswick, and the market is very strong, with indications of an advance in prices during December. At Darien there is an unusual demand for all classes of lumber, and shipments promise to show a very handsome record during the next month. There is a quiet market for sail tonnage in all departments. Coastwise lumber freights are dull, though sales are without quotable change. The charters reported are schooner C. H. Valentine, 536 tons, Savannah to the Sound with lumber at $5.50; schooner R. G. Dunn, Savannah to Fall River with lumber on private terms; schooner E. L. Allen, St. Simons to New York with lumber at $4.87½, and schooner M. M. Keough, 488 tons, Savannah to New York with lumber on private terms.

Mobile.

[From our own Correspondent.]
Mobile, Ala., November 25.

The market for lumber and timber at this port is moderately active, with prices for sawn timber firm at the advance. Sawn timber is now firm at 14½ to 15 cents per cubic foot, 40-foot basis. The market is bare of stock, and spot timber is offered already at 16 cents, but exporters are not disposed to do business at that figure, but will await developments. The advices from Europe are unchanged, and show but little improvement in the market at United Kingdom or continental ports. There is still considerable doing in lumber, and the demand from South

America, Cuba and other points is fairly active. During the past week the following shipments were recorded: Steamer Cairncrag for Manchester, England, with 132,888 cubic feet of sawn timber and 30,797 feet of lumber, and for Lisbon, Portugal, with 28,893 cubic feet of sawn timber. The bark Hendrick Ibsen cleared for Buenos Ayres with 572,024 feet of lumber; steamer Talefon for Progresso, Mexico, with 118,632 feet, and schooner F. Morang for the same port with 209,717 feet and Tjomo for Havana with 4080 feet. The total shipments of lumber for the season amount to 18,748,739 feet, against 17,954,416 feet last season. Among the charters reported last week were the Italian bark Maria G. from the Gulf to Buenos Ayres with lumber at $12.25; the Norwegian bark Combiatore, 1163 tons, from the Gulf to Rio Janeiro with lumber at $13, option of Buenos Ayres at $12.25, and schooner Malden from Pascagoula to Philadelphia with lumber on private terms.

Beaumont.

[From our own Correspondent.]

Beaumont, Texas, November 23.

The farmers are continuing to market their cotton, or at least a portion thereof, and the beneficial effect of turning this cotton loose is being felt in all the country districts. It has served to stimulate buying by the farmers. This activity on the part of the farmers has caught quite a good many of the dealers short on stock, and the consequence has been a large volume of "rush" orders to the mills for material. Generally speaking, however, there has been quite an improvement in the Texas trade during the last two weeks. The demand has increased at least 25 per cent., while prices have stiffened up considerably. There is no difficulty in obtaining full prices for A and B grades of flooring, ceiling, siding and finishing, which are for the A grade, respectively, $21, $20, $22, and $22 for the finishing on the basis of six-inch widths; other sizes in proportion. Common stock is not being sold by reputable mills at less than $14.50, while in many cases the full list price of $15 is being paid. Traveling salesmen are sending in a good many orders, and report that they find conditions much better than they were thirty days since. It is the opinion of those well informed on the lumber situation that the present demand and the present values of lumber will be maintained until through the month of January. After that time it is, of course, too far off to predict with any degree of accuracy. The stocks at the mills (long-leaf) have just been compiled for the month of October, and it is found that there is scarcely any change in the conditions existing over those of a month previously. The stocks at the mills remain about the same, which is to say something like 100,000,000 feet less than this time last year. The dealers are not thought to have stocks on hand equal to a normal supply. One reason for this is that when the cotton crop began to be suspected as being a short one the dealers generally refrained from ordering more stock than was necessary for their current requirements. There is no change worthy of note in the situation as it relates to the Western markets. Omaha has sent some enquiries to this section, as has Kansas City, but the prices offered on the stock are not such as to be considered attractive. There is a fair enquiry coming from all that territory, but for the reason noted there is not much actual business being transacted. The greatest event in the timber line the past week is the publication of news concerning a great order for lumber which was taken by the Kirby Lumber Co. of Houston. This firm has booked an order for 200,000,000 feet of various sizes and sorts of lumber. It is not definitely known who the purchaser of this large amount of stock is, but it is pretty certain that the buyer is the Santa Fe Railroad system. It is not known how long a time is given for the completion of the contract, although the Beaumont mills are now sawing on same. There is a good demand for all classes of timber. Heart ties are quoted at $12 f. o. b. mills, saps at $8.50. Orders can be obtained for more than the mills can cut. The demand is greater, in fact, for all classes of timber than the mills' capacity. The orders now on the books for this class of business would keep them all busy for the next three months if not another foot was booked. Stringers are also in good demand. The Chicago railroad market continues to be an active buyer. There is no change in the export business. There have been no orders booked. The schooner Deering will arrive at Sabine tomorrow to take on a cargo of timber for a Northern Atlantic port. Beyond this there is no change from the apathy which has prevailed so long. The demand for shingles in Texas continues to be good, although the stocks in the hands of the cypress-shingle manufacturers of Louisiana are not large. Hearts are quoted today at $3.50 and primes $3 delivered on common-point rate in Texas. The local demand for lumber in this county is something enormous. It amounts to 2,000,000 feet a month, and this is equal to the capacity of one of Beaumont's great saw-mills.

Lumber Notes.

The Garrison saw-mill plant at Linden, Ala., is about completed, and will be in operation in a few days.

Shipments of lumber from the port of Mobile, Ala., last week amounted to 1,460,000 superficial feet, and of sawn timber 161,781 cubic feet.

It is stated that another woodworking factory with a capital of $20,800 will be erected at High Point at an early date, land having been secured for the location.

Mr. Daniel Grey is now erecting a large planing mill at Milton, Fla. He will also conduct in connection with the mill a general workshop and manufacture doors, sash, etc.

The Holston Furniture Co. of Knoxville, Tenn., has been chartered, with a capital stock of $25,000. The incorporators are George W. Queener, J. F. Chumbley, Lewis Tillman, J. G. Stewart and S. R. Rambo.

The Blades Lumber Co. of Elizabeth City, N. C., has added a large lumber shed to its saw-mill plant. The shed is 95x100 feet. The company has also added other improvements, which will increase its capacity.

Receipts of lumber at New Orleans for the week ending November 22 amounted to 1,763,000 feet, and for the season 34,440,296 feet, against 37,073,121 feet last season; receipts of shingles 118,000 bundles, and laths 300,000 bundles.

The wholesale furniture business of J. H. Parham at Chattanooga, Tenn., has been reorganized, and will hereafter be known as the Wilcox-Carter Furniture Co. The officers of the company are O. K. Wilcox, president; J. A. Carter, treasurer, and C. L. Carter, secretary.

The Raleigh Manufacturing Co. of Raleigh, N. C., has been incorporated, with a capital of $5000. The incorporators are George C. Bonniwell, John W. Coffee, D. P. Bynum, John T. Jones and S. D. Wait. The corporation will deal in lumber and engage in the manufacture of sash, doors, blinds, moldings, etc.

Capitalists at Starkville, Miss., have purchased 3500 acres of timber land on Lake George, in Oktibbeha county. It is stated that the timber will be cut at once and the crossties thus obtained will bring twice the sum paid for the property. After the land is cleared it will raise anything and everything grown in Mississippi.

The immense planing mills and dry-sheds of the Queen & Crescent Lumber Co. at Nicholson, Miss., were destroyed by fire on the 19th inst. The lumber destroyed was over 3,000,000 feet. Affairs will be straightened out in about thirty days, when the planing mill will be rebuilt. The loss is about $80,000, with $40,000 insurance.

It is reported that the Hampton Roads Creosoting Co., recently chartered in Norfolk county, Virginia, has purchased ten acres of water-front property at Portsmouth, Va., as a site for the erection of a large plant. The company is capitalized at $150,000, and proposes to manufacture cross-arms for telegraph and telephone poles and conduit tubes of creosoted wood.

It is stated that the lumber company recently organized by Mr. John H. Kirby of Houston, Texas, has booked one of the largest orders for lumber ever undertaken by a lumber company. While details of the transaction have not been given out, it is known that the order will approximate 200,000,000 feet. The lumber is for shipment to New York, and it is said that it is to be long-leaf yellow pine exclusively.

The Schwing Lumber & Shingle Co., Limited, of Plaquemine, La., has been chartered, with a capital stock of $60,000, all paid in. The incorporators are Samuel P. Schwing, president; Edward P. Schwing, secretary and treasurer; John M. Dresser, vice-president, and Calvin K. Schwing, Edward Wisner, Henry I. Levy, Henry N. Sherburne, Jr., Maude Dresser and George G. Metzger. The company has already secured a large quantity of stumpage, and will commence operations at once.

The Turpentine Operators' Association was permanently organized last week at Jacksonville, Fla. The executive committee consists of the following gentlemen: President, A. D. Covington; secretary, A. Pridgen; J. C. Powell, H. A. McEachern and W. W. Simons. The outlook is good for a reduction in cutting, and also in a reduction of the product. Very few new trees are being cut, and no new territory to speak of is being opened. The city of Jacksonville is to be the headquarters of the association.

The Southern Furniture Manufacturers' Association, which was organized in Chattanooga, Tenn., one month ago, held its first regular meeting in Charlotte, N. C., on the 20th inst. President H. F. Temple of Chattanooga was in the chair, and all the other officers and about forty members were present. The meeting was held with closed doors and none of the proceedings made public. Addresses were delivered by prominent furniture men. Mr. Kearns, a furniture man from Gallipolis, Ohio, made an address on "The Advantages of Organization." Mr. Elwell of Minneapolis, Minn., spoke on "The Manner of Figuring Cost." Mr. Barnard from Minneapolis also addressed the meeting. The association begins its career with flattering prospects for usefulness, and promises to be of direct benefit to its members. The officers of the association are H. F. Temple of Chattanooga, Tenn., president; A. E. Tate of High Point, vice-president; Wilbur Jones of High Point, secretary, and J. S. White of Mebane, treasurer.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., November 27.

There is a moderate movement in phosphate rock, and in the local market values continue to rule steady, with several sales of Tennessee and Florida rock reported. The demand from local fertilizer men is not urgent, and sales reported are only to meet existing necessities. The charters reported for the week were the Danish steamer Gallia, 1183 tons, from Fernandina to Trieste with phosphate rock on private terms, and steamer Northwestern, 1496 tons, from Sparrow's Point to Galveston with rails and back from Charlotte Harbor with phosphate on private terms. The situation at mining points is unchanged from that reported a week ago. The movement in Tennessee continues to attract the attention of the trade, and it is stated that business at Mt. Pleasant and other mining points is materially better than it was a month ago. The sales of domestic rock for 1902 delivery are in excess of any year since 1899. The shipments of rock from the Florida ports for November will be larger than usual, and it is stated that the industry in that section is now in a more satisfactory shape than for some time past. The foreign demand is better, and prices have a tendency to advance. The market for phosphate rock in South Carolina is now very steady, with a good output and a fair foreign inquiry. In the Ashley river mining is now being conducted with unusual enterprise.

Fertilizer Ingredients.

There is a fairly active demand for ammoniates, and the market is steady, with values unchanged. From Southern sources there continues to come a good inquiry, and from the Eastern market there is a moderate demand.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)....	$2 80	@ 2 82½
Nitrate of soda, spot Balto....	1 90	@ 1 92½
Blood	2 27½	@ 2 30
Azotine (beef).....	2 30	@ —
Azotine (pork).....	2 30	@ —
Tankage (concentrated).....	2 17½	@ 2 20
Tankage (9 and 20).....	2 25 & 10	@ 2 30 & 10
Tankage (7 and 30).....	20 00	@20 50
Fish (dry).....	26 00	@27 00

Phosphate and Fertilizer Notes.

The Norwegian steamer Norman Isles arrived at Charleston, S. C., last week from Fernandina, Fla., with 3000 tons of phosphate rock, and after taking 100 bales of cotton, sailed on the 23d for Antwerp.

The steamer King Gruffydd sailed last week from Savannah with 1649 tons of high-grade Florida phosphate rock for Bremen, and the Dutch steamer Flores for Havre and Zuyndrecht with 2497 tons for the latter port.

It is stated that business in the phosphate mines at Mount Pleasant, Tenn., is picking up very materially, although the car shortage is still interfering with the movement of rock. The prospect for an improved business during the winter months, and in fact all through the coming year, is very bright. The sales of domestic rock for 1902 delivery are in excess of any year since 1899. Labor is very scarce at the mines, and the International Phosphate Co. and the Central Phosphate Co. are both seeking laborers in large numbers, and many of the other companies will have to increase their force.

The assessed valuation of property in Alabama this year is $284,622,937, an increase of $17,749,649 over the valuation in 1900.

MECHANICAL.

Sprague Multiple-Unit System.

One of the most interesting electrical systems at present in use for traction purposes is the Sprague multiple-unit system, as applied to both elevated and surface railways. Briefly defined, it is a system of control of railway-motor controllers, whatever their number and wherever situated in a train, through a secondary electric circuit common to all the cars from or through which it is desired to exercise control. The number and position of equipped or unequipped units, and to a certain extent the character of these units, is immaterial, and variation in end relation should likewise be a matter of indifference.

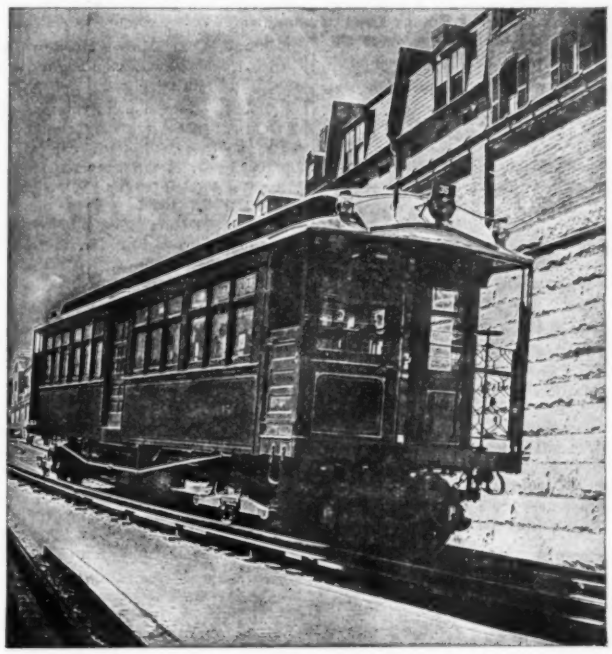


FIG. 1—STANDARD CAR COMPLETE.

The system covers the entire range of service, from a single car operated as an independent unit to a train of any length equipped with as much or little power as required.

Each motor car is equipped with complete power-operated apparatus for its motors, and has, in addition, an independent train line, by means of which it can be operated from other cars, as well as operate other cars. This train line terminates in shrouded couplers under the platform at each end of the car. The train lines on different cars, whether equipped with motors or not, are joined by detachable reversible jumpers. The train line is especially designed to secure reliability. To insure this it carries only small currents, and has but four or five controlling wires. There is no ground wire carried through the train line. Provision is made for a relay line to be carried in the common cable for the operation of the air compressors. The wires are each thoroughly insulated, and the cable is protected from mechanical injury. The train line is completely isolated from the local circuits on each car. The operating relays, energized from the train line on each car, are each separately protected, so that their failure cannot interfere with the operation of unaffected cars. The operation is in no way affected by changes in the sequence of cars.

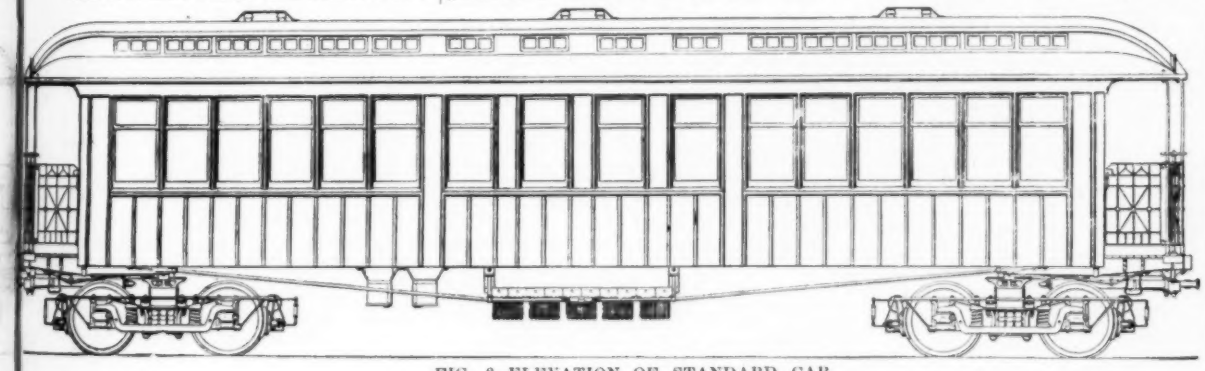


FIG. 2—ELEVATION OF STANDARD CAR.

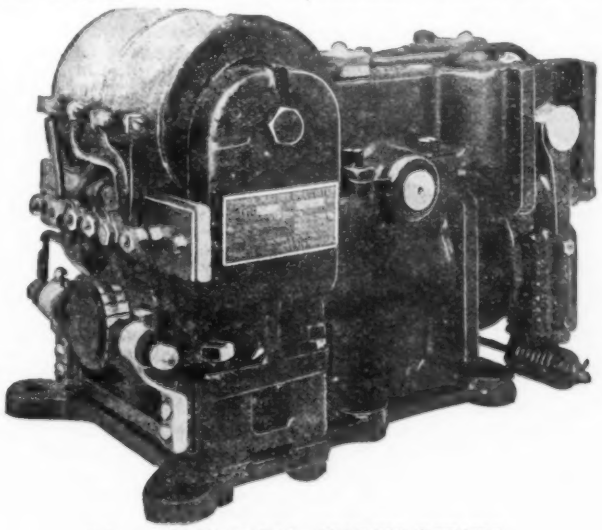
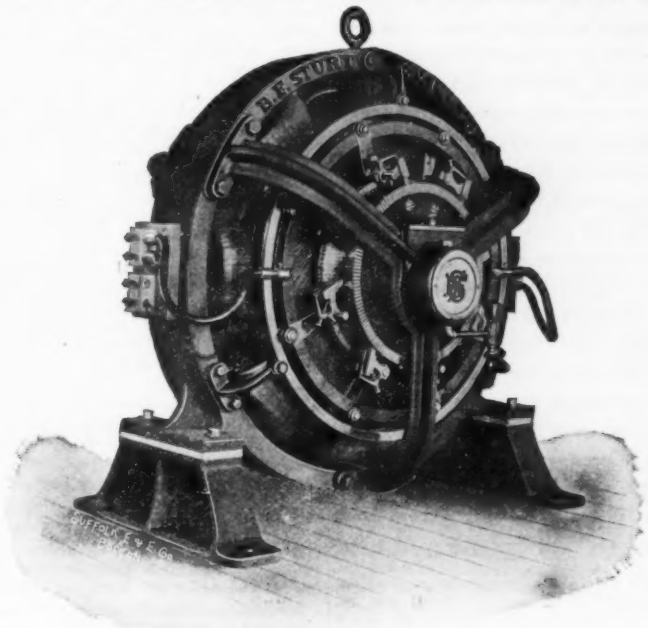


FIG. 3—PILOT MOTOR, SHOWING DETAILS.

The train line can be readily cut off from the local circuits on any car, and the local pilot-motor circuit and main-motor circuits are independent of the train line, so that no derangement of main circuits or apparatus can be communicated to it. Each pair of motors is controlled by the joint operation of a speed controller and reverser. The main circuit is opened independently by each, and any derangement of either renders that car inoperative. This is secured by interconnection of operating circuits, so that current cannot be continued through motors.

Each car automatically governs the current input in the car, and insures the most efficient acceleration and operation independent of the motorman. Means are also provided to restrain the current input at will by manipulation of the master switch. Protection is automatically provided against any improper operation at the master switch, or misplacement or failure of any part of the system. In any case, the indicated result will follow a movement of the master switch, or the main circuit will be opened and the apparatus rendered inoperative.

The Boston Elevated Railway, on which the Sprague system is installed, affords an admirable illustration of its adaptability for urban as well as suburban transportation. The present elevated route comprises 10.17 miles of track, of which 2.27 miles are under ground in the subway and the remainder on elevated structures at each end of the road. The subway portion will be supplemented shortly by the elevated structure of the Atlantic avenue division, having 4.69 miles of track, which is nearing completion. The Sprague method of operation has proved so satisfactory that contracts for more equipment have been made, and it is believed that in the near future fully 600 cars will be running on fifty miles of elevated track in the city and suburbs.



THE STURTEVANT EIGHT-POLE MOTOR.

The Sturtevant Eight-Pole Motor.

The eight-pole type of motor lends itself particularly well to adoption for fan-driving. Its comparative lightness and its compactness make it a comparatively simple matter to attach it to the side of the ordinary fan. The B. F. Sturtevant Co. of Boston, Mass., has been developing the electric fan along various lines during the past few years, and as an outcome has produced a type of eight-pole motor, illustrated herewith, which may be either attached directly to the fan side, or, as shown, supported upon feet and used as an independent machine.

The field ring, which also constitutes the frame, is of wrought iron in the small, of cast steel in the medium, and of cast iron in the large size. The field cores are of wrought iron, and the pole shoes of cast iron, of such peculiar shape and size as to render these machines capable of meeting extreme variations of load without sparking or the necessity of adjustment. The field coils are machine-wound, thoroughly insulated, and of such open construction as to secure the maximum radiation and ventilation. The armature core is built up of laminated slotted discs, which are solidly clamped between two brass rings having corresponding slots. The coils are machine-wound, of uniform size and shape, and thoroughly insulated, the armature being of the drum type.

The commutator is of large diameter, the segments being of fine drop-forged copper. For high voltages or small outputs at low speeds two sets of reaction carbon brushes are usually employed, and, from the character of the design, require no adjustment. Tripod-bearing yokes are provided, as shown, except in the largest machines, which are equipped with special bases and pedestal bearings. The shaft runs in gun-metal sleeves, and is lubricated by means of ring oilers.

In this style these motors are built in powers ranging from three to thirty-seven and one-half horse-power at normal speed. In larger sizes a pedestal base is provided, giving the motor a still more substantial character. In all sizes these machines are built both as motors and generators.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Attalla—Coal and Iron Mines.—Coosa Valley Coal & Iron Co. has purchased the mines heretofore operated by Coosa Valley Coal, Iron & Mining Co., and will at once develop, erecting fifty coke ovens. W. E. Knox of Anniston, Ala., is one of the directors, and may be addressed.

Birmingham—Plow Works.—Austin Bryan Plow Co., manufacturer of steel plows, has increased capital stock from $75,000 to $150,000.

Fruithurst—Oil and Mineral Properties.—Fruithurst Mining & Development Co., reported recently, will soon begin development of oil and mineral properties. James A. Salisbury is president; E. J. Phillips, attorney and secretary; W. J. Barse, treasurer. Address E. J. Boynton, one of the directors.

Guntersville—Logging Operations.—Capt. Joseph Glover has organized the Glover Logging & Lumbering Co. for lumbering and logging operations.

Mobile—Gas Plant.—J. H. Wilson has applied for franchise for erection of gas plant, and if granted, plant will be built by the Mobile Light & Power Co.

Montgomery—Sewerage System.—City is contemplating constructing sewerage. Address "The Mayor."

Opelika—Sewerage.—Sanitary Sewer Co. of Philadelphia, Pa., has received contract for constructing a $30,000 sewerage system at Opelika.

Scottsboro—Coal Mines.—A. S. Selders, M. L. Ritter and H. K. Miller of Reading, Pa., have purchased 25,000 acres of mineral lands from Capt. John R. Harris in Jackson county, and will open up coal mines.

Wilmer—Lumber Mill.—Wilmer Lumber Co., recently reported incorporated, is operating an established plant, which it will rebuild and improve in the spring, also build a logging road.

ARKANSAS.

Hamburg — Mercantile. — Incorporated: Hamburg Grocery Co., Ltd., capital $10,000, and R. E. Pugh, secretary.

Paragould—Cotton Gin.—Chartered: Jones Gin Co., capital $1500, by W. N. Jones, president; A. Bertig, S. Bertig and S. L. Joseph.

Prairie Grove—Oil Wells.—Ozark Oil Co. (lately reported) has leased 12,000 acres of land, and will prospect for oil; if found in sufficient quantities, pipe lines and storage tanks will be built. Address H. L. Davis, secretary.*

Searcy—Mill.—Chartered: Searcy Mill Co., with capital stock of $25,000, by J. C. Baugh, J. S. Ford, E. A. Robbins and others.

FLORIDA.

Milton—Planing Mill, etc.—Dan Grey will establish a planing mill, and also manufacture doors.

Tampa — Woodworking Factory.— Arthur Kirkland, S. L. Varnedoe, J. A. Cranford, J. L. Greer and others have incorporated the Kirkland Lumber Co., with capital stock of $10,000, for manufacturing lumber, sash, doors, blinds, shingles, etc.

Tampa—Telephone Company.—Peninsular Telephone Co. (previously reported as incorporated with capital of $200,000) has decided to increase capital to $500,000 for constructing long-distance lines, not at first contemplated.

GEORGIA.

Atlanta — Hardwood Company.—Southern Pine & Hardwood Co. has been incorporated, with capital of $2500, by L. D. Hoppe, W. H. Vannerson, N. Alexander and others.

Blackshear — Chemical Works.— Meldrum Camphor & Chemical Co. has been incorporated, with capital stock of $500,000, for manufacturing camphor and celluloid crystals and by-products under processes of the Globe Manufacturing Co. of 11 Mansion House Chambers, London, England, the American company to own the rights for the United States and Canada. An initial plant will be established to cost $50,000; its capacity monthly will be fifty tons. Directors are Archibald Meldrum of Blackshear, Ga.; M. Frank, 904 Cauldwell avenue, Bronx, New York city; Gardner W. Kimball, Wilmington, Del., and C. G. Murray of Blackshear. Archibald Meldrum is manager, and can be addressed. M. Temple Taylor, Savannah, is temporary secretary. Registered office is at 902 Market street, Wilmington, Del.

Forsyth—Laundry.—A steam laundry will be established. Address A. A. Turner.*

La Grange—Sewerage System.—City contemplates constructing sewerage system. Address "The Mayor."

Savannah—Electric Company.— Savannah Electric Co. has been formed, and will consolidate and improve the electric interests of the city; will be bonded for about $7,000,000.

Waynesboro — Electric-light Plant and Water-works.—The city will issue bonds for construction of water-works and electric-light plant. Address "The Mayor."

KENTUCKY.

Henderson—Sewerage.—Bids will be advertised for constructing sewers in three streets. Address City Engineer Kimmell.

Lexington — Sewerage. — Construction of sewerage system is talked of. Address Mayor Duncan.

Louisville — Telephone Company. — Louisville Home Telephone Co. has been chartered under Delaware laws, with capital stock of $1,000,000.

LOUISIANA.

Daspit — Oil-well Developments. — Acadia Oil & Fuel Co. of New York, chartered recently, has organized with J. J. Kutsch, president; X. Herme, secretary, and H. Sturm, treasurer; has capital stock of $75,000, and has contracted at $10,500 with T. W. Sturm of Beaumont, Texas, for the drilling of an oil well 1500 feet deep at Daspit. Officers are of New York, and have office at 24 East Eighth street, that city.

Donaldsonville—Telephone System.—American Telephone Co. has applied for franchise for constructing and operating a telephone and telegraph system.

Jennings—Brick Works.—Jennings Brick Co. has been organized to operate plant of the Jennings Brick & Construction Co., reported recently to reorganize; capital stock is $20,000, and W. F. Humphrey, president; M. C. Melanson, vice-president; George A. Courtney, secretary and treasurer.

New Orleans—Electric-light Plant.—City contemplates constructing an electric-light plant, as recently reported, to serve 2600 arc lamps. It is estimated that plant will cost about $300,000, and City Engineer W. J. Hardee is preparing plans and specifications to govern construction.

New Orleans—Land Improvement.—Hewes T. Gurley, T. H. Hewes, C. B. Fischer and others have incorporated Avoyelles Land & Improvement Co., with capital stock of $50,000, to cultivate, drain and improve lands.

Opelousas — Mercantile. — Chartered: St. Landry Wholesale Mercantile Co., with capital stock of $10,000, by Isaac Roos and others.

Pinquemine—Lumber and Shingle Mills.—Schwing Lumber & Shingle Co., with capital stock of $60,000, has been incorporated for manufacturing lumber and shingles, by Samuel P. Schwing, president; Edward B. Schwing, secretary and treasurer, and John M. Dresser, vice-president.

MARYLAND.

Baltimore—Oil-storage Plant.—It is stated that Missouri, Kansas & Pacific Oil Co., Theodore Stegner, president, Kansas City, Mo., has definitely decided to establish the oil-storage tanks recently mentioned. Plans propose the construction of tanks for holding 380,000 barrels of Beaumont oil, to be distributed for fuel purposes. Charles E. Matt of Baltimore is reported to be negotiating for site for the enterprise.

Baltimore—Drug Company.—Incorporated: Gerber Drug Co., capital stock $20,000, by Richard A. Anderson, Elias E. Heller, J. Ramsey Barry and others.

Baltimore — Box Factory.— Incorporated: Shippers' Box Co., capital stock $1000, for manufacturing packages for shipping merchandise, by Edw. T. Noble, Fredk. Foster, Irvine R. Dickey and others.

Baltimore—Advertising.—Chartered: International Store Advertising Co., Limited, with capital stock of $50,000, by Wilmer L. Kelley, Richard Gwinn, Gordon H. Smith and others.

Baltimore—Telephone Exchange Manufacturing.—Faller Automatic Telephone Exchange Co. has been chartered, with capital stock of $5,000,000, to manufacture and introduce such a device as title indicates. Dr. J. W. Chisolm is president, and Ernest A. Faller, 705 East Fayette street, secretary and inventor.

Baltimore — Novelty Factory. — George Schneider Manufacturing Co. has been incorporated, with capital stock of $25,000, for developing patented novelties, by George Schneider, Harry K. Sutton, James H. Parris, Jr., and others.

Baltimore—Brass, etc., Works.—R. E. Kirk, Jr., Company, with capital of $2000, has been incorporated for manufacture of brass hardware, marine and electric specialties, by Robert E. Kirk, Jr., S. Frank Bennett, Robert H. Dew and others.

Baltimore—Shoe Factory.—Chartered: Patapsco Shoe Manufacturing Co., with capital stock of $10,000, for manufacture of boots and shoes, by William H. Heiser, William Penrose, Melvin S. Griffith and others.

Baltimore — Fertilizer Works. — Armour Fertilizer Works is erecting a new plant with capacity of 15,000 to 20,000 tons, and with electrical transmission, to replace buildings recently burned.

Cumberland — Electric-light Plant.—Chas. W. Kilbourn of New Brunswick, N. J.; Arthur Le Roy Fill of Washington, D. C.; Arthur L. Bosley of Baltimore, and Duncan Sinclair of Cumberland have incorporated the Cumberland Electric Light & Power Co., with capital stock of $50,000, for installation of electric-light plant.

Cumberland—Water-works Improvement.—City will purchase new pumping engines for its water plant, as recently reported, and has employed J. C. Troutwine, Jr., of Philadelphia, to superintend installation. In reference to machinery, address Mr. Troutwine, 257 South Fourth street, Philadelphia.

Hagerstown—Metallic-bed Factory.—Maryland Metallic Bedstead Co., previously reported to establish a factory, has awarded contract for erection of its buildings to O. D. Shirley. Main building will be 60x135 feet, with wing 60x95 feet.

Hyattsville—Furniture Factory.—W. O. Gottwals of Washington, D. C., is said to contemplate the removal of his furniture factory to Hyattsville.

Hyattsville — Machine Shops. — It is reported that W. S. Haar of Congress Heights, D. C., will remove his machine shops to Hyattsville.

Midland—Coal Mine.—Consolidation Coal Co. states that the new coal vein it is opening, as reported recently, will be developed to a daily capacity of 500 or 600 tons. B. S. Randolph is superintendent; office at Frostburg.

Oakland—Coal Mines.—Meadows Mountain Coal & Coke Co. will soon begin construction of a large mining plant.

Salisbury—Telephone Systems.—Maryland & Delaware Telegraph & Telephone Co. has been incorporated, with capital stock of $100,000, by J. Kemp Stevens, Geo. L. Wallace, Chas. E. Stevens, Wm. H. Deweese and Fred R. Owens. New company owns several other companies, and will make improvements, installing the metallic system for the Salisbury plant.

MISSISSIPPI.

Ellisville—Saw-mill.—Northern capitalists have purchased for $40,000 the saw-mill of Isaac Anderson, and will more than double the capacity.

Ellisville. — Chartered: Ellisville Home Improvement Co., with capital stock of $10,000, by Hugh McManus, J. A. Tinnon, B. F. Fridge and others.

Meridian — Trunk Factory. — Meridian Trunk Factory has been incorporated, with capital stock of $10,000, by W. S. Barefield, A. P. Crouse, J. S. South and others.

Monticello—Mercantile.—Chartered: Monticello Mercantile Co., with capital stock of $10,000, by A. E. Moreton, J. E. Seavey, T. H. Brinson and others.

Natchez—Sewerage System and Water-works.—Efforts are being made to secure sewerage system and water-works. Address "The Mayor."

Vicksburg—Lumber Company.—Mississippi Lumber Co. has been organized to conduct retail lumber and building-material business. O. R. Wood is manager.

MISSOURI.

Blue Mound—Electric-light Plant.—City will hold an election to vote on proposition of purchasing the electric-light plant. Address "The Mayor."

Charleston—Oil Wells.—A company with capital stock of $5000 has been organized for the purpose of prospecting for oil. Names of interested parties will be announced later.

Joplin—Brewery.—Missouri National Brewing Co., recently chartered with capital stock of $300,000, will erect a six-story building for its plant, capacity to be about 400 barrels per day.

St. Louis—Candy Company.—Incorporated: Ideal Candy Co., capital stock $4500, by F. H. Templemeyer, J. E. Dillon and others.

St. Louis — Agricultural-implement Factory.—R. J. Gatling of 3650 Lindell Boulevard has organized company with capital of $50,000 for manufacturing plows and other agricultural implements, as recently reported.*

NORTH CAROLINA.

Asheville—Water-power-Electrical Plant.—W. T. Weaver Power Co., referred to last week, states that its developments will furnish 3000 horse-power for industrial purposes, the completed plant and other work to cost about $200,000. Ladshaw & Ladshaw of Spartanburg, S. C., the engineers for the development, are preparing plans and specifications for the machinery to be submitted to manufacturers. Several manufacturing industries will be located, but details are not known. W. T. Weaver is president.*

Asheville—Water Supply.—City will hold an election January 14 to decide the issuance of $200,000 of bonds for establishing a new gravity water supply. Address "The Mayor."

Charlotte—Distillery.—Charlotte Distillery Co. will be incorporated by A. J. Greene, B. N. Hampton, N. C. Price and others for the erection of a distillery, for which site has been bought. Address Mr. Hampton.

Dunn—Chair Factory.—J. D. Eazell contemplates establishing a chair factory.*

Durham—Sewerage.—A. L. Patterson & Co. of Macon, Ga., have contract for construction and Montague & Co. of Chattanooga, Tenn., contract for furnishing the piping for Durham's proposed sewerage system; contract price $84,220.

Hamilton—Milling.—Chartered: Hamilton Milling Co., with capital of $2200, by W. D. Lewis, T. B. Slade, G. L. Roebuck and others.

High Point—Woodworking Factory.—Another woodworking factory with capital

stock of $20,800 will be established. Names of interested parties will be announced later.

Jonesboro—Cotton Mill.—Jonesboro Cotton Mill has changed name to Eugenia Manufacturing Co., added machinery and ordered still further additions.

Motor—Saw-mill.—G. W. Pearson will establish a saw-mill of 10,000 feet capacity for developing 400 acres of timber land.

Raleigh—Woodworking Factory.—Raleigh Manufacturing Co. has been incorporated, with capital stock of $10,000, for manufacturing sash, doors, blinds, etc., by Geo. R. Bonniwell, John W. Coffee, D. P. Bynum, John T. Jones and S. D. Walt; plant in operation.

Salisbury — Water-works Extension.—Mr. Burlingame has received contract for extending city's water-works system. A basin for holding 1,000,000 gallons of water will be constructed, principally for drinking water.

Spencer—Railroad Shops.—Southern Railway Co. has commenced erection of addition to machine shops to accommodate $7000 worth of machinery that has been ordered. W. H. Robinson is master mechanic.

Spray—Drug Company.—Spray Drug & Chemical Co. has been incorporated, with capital stock of $25,000, by John Sweaney and John B. Ray of Leaksville, N. C., and E. V. Hobbs of Spray.

Wilmington—Ice Company.—Chartered: Independent Ice Co., with capital stock of $100,000.

SOUTH CAROLINA.

Abbeville—Cotton Mill.—It is proposed to organize company to build cotton mill, and P. Rosenberg is interested.

Bennettsville — Electric-light Plant.—City has voted issuance of bonds for installation of the electric plant previously noted. It will be operated by steam, with capacity for furnishing twenty-five arc lights of 2000 candle-power each and 800 to 1000 incandescent 16-candle-power lamps. Address "The Mayor."

Columbia — Fish-supply Company.—Chartered: Carroll-Kressel-Leslie Fish Co., capital $1500, by T. W. Carroll and C. L. Leslie of Charleston, S. C.

Columbia—Fish Supply and Ice Plant.—Columbia Fish & Ice Co., for conducting fish-supply business and ice-manufacturing plant (established), has been incorporated, with capital stock of $5000, by F. S. Terry of Columbia and C. T. Halsey of Charleston.

Florence — Water-works. — Hite-Smith & Minshall of Norfolk, Va., will prepare plans for water-works for Florence, previously noted.

Laurens—Overall, etc., Factory.—T. K. Hudgens and others are organizing a stock company for manufacturing overalls, work shirts and drawers; will build brick building 30x60 feet, two stories; address 309 East Main street.*

Manning—Knitting Mill.—W. Scott Harvin will improve his knitting mill, as reported recently; improvement will consist of adding a box factory.

Spartanburg—Soap Factory and Oil Mill.—Trimmier & Darden will increase capacity of their soap factory, increasing capital stock from $18,000 to $75,000; company will also build its own oil mill and make other improvements.

TENNESSEE.

Bristol — Handle Factory. — C. F. Ohlemacher has leased building and ordered machinery for the manufacture of handles.

Bristol—Carriage Factory.—Hamilton, Bacon & Hamilton will erect a carriage factory.

Chattanooga — Realty Company. — Chartered: Chattanooga Realty Co., with capital stock of $10,000, by Samuel W. Divine and others.

Coffee County—Land Improvement.—William R. Snyder of New York is investigating with a view to locating a colony in Coffee county, expending $50,000 in developments and establishing and promoting mining and manufacturing operations. He is in communication with Col. J. B. Killebrew, immigration agent of the Nashville, Chattanooga & St. Louis Railway.

Friendsville—Lead Mines.—Capt. T. M. Crawford has discovered and will develop lead ore.

Huntingdon—Lead Mines.—J. W. Crews has discovered lead deposits on his property, and will develop same.

Knoxville—Coal Mines.—Coal Creek Mining & Manufacturing Co. is said to be preparing for extensive developments of its properties in coal lands in Anderson county. At annual meeting last week New York parties were made directors, including Oliver H. Payne, Stewart M. Brice and E. R. Chapman. Company may be addressed care E. J. Sanford at Knoxville.

Knoxville — Furniture Factory. — Holston Furniture Co. (operating a factory) has incorporated, with capital stock of $10,000, and will install additional machinery. Incorporators include J. Fisher Chumbley, Geo. Turner, Lewis Tillman, J. G. Stuart and Sam R. Rambo.

Knoxville—Saw-mill, etc.—C. B. Atkin will establish saw-mill and dry-kiln.

Memphis—Grain Elevator.—Webb & Maury are erecting the grain elevator lately reported; it will cost about $20,000.

Mt. Pleasant—Ice Factory.—An ice factory will be established. Names of interested parties will be announced later.

Nashville — Pure-food Company. — Dixie Pure Food Co. has been incorporated, with capital stock of $25,000, for manufacturing pure-food products, by R. L. Pierce, L. L. Lawrence, J. E. White and others.

Nashville—Coal Mines, Coke Ovens, Iron Mines and Furnaces, etc.—Nat. Baxter, Jr., has accepted the presidency of the Cumberland Coal & Iron Co., as reported last week. The company owns between 500,000 and 700,000 acres of coal, timber and iron lands on the Cumberland plateau, has developed to some extent the coal deposits and plans a thorough development of the properties, including the mining of coal, manufacture of coke, mining of iron, erection of blast furnaces, etc. St. Louis (Mo.) capitalists are largely interested in this company.

Paris—Machine Shops.—Paris Manufacturing & Implement Co. has been organized, with capital stock of $15,000, and purchased machine shop, which it will enlarge and operate, erect a new warehouse, etc. Joe Johnson will be president, and J. R. Province of Fulton, Ky., vice-president.

Rockwood—Electric-light Plant.—City has voted issuance of $6000 for completing its electric-light plant. Address "The Mayor."

Shelbyville—Oil Wells.—Monarch Oil & Mining Co., reported recently as incorporated, has completed organization with Chas. C. Anderson, president; H. C. Ryall, vice-president; Chas. S. Ivie, treasurer, and L. H. Russ, secretary.

Shelbyville—Rim Factory.—W. L. Wilhoite and R. E. Evans will establish plant for manufacturing rims for wheels.

Springfield—Water-works.—City will vote November 30 on the issuance of $25,000 of bonds for constructing system of water-works. Address "The Mayor."

Winchester — Real Estate. — Chartered: Keystone Real Estate Co. has been incorporated, with capital stock of $6000, by S. M. Alexander and others.

TEXAS.

Alvin—Oil Wells.—Chartered: Amsterdam & Alvin Oil Co., with capital stock of $150,000, by C. C. Weyant, F. J. Cullum, Henry Brodhead, W. G. Scott, each of New York, and W. W. Hoskins of Velasco.

Austin—Packery.—Houston Packing Co. of Houston, Texas, will establish a branch of its plant at Austin.

Beaumont—Steam Laundry.—Ineeda Laundry will rebuild its burned plant. About $10,000 will be expended.

Beaumont — Oil Refineries. — Chartered: Neches Oil Refining Co., capital stock $500,000, to build and operate oil refineries in a number of Texas counties, by D. O. Lively of Beaumont, Walter B. Sharp and Ed. Prather of Dallas and others.

Beaumont—Oil, Paint and Varnish Company.—Texas Oil, Paint & Varnish Co., with capital stock of $20,000, has been incorporated by D. Call, C. L. Wallis and N. N. Crary.

Cartwright—Salt Mines.—E. H. R. Green, J. M. and D. H. Mitchell, S. J. Sowders and others have formed a company for the purpose of boring for salt.

Center—Electric-light and Ice Plant.—W. N. Bailey of Nacogdoches, Texas, is investigating with a view to establishing electric-light and ice plant at Center.

El Paso — Real-estate Improvement. — Woodlawn Real Estate & Improvement Co. has been incorporated, with capital stock of $60,000, by W. B. Latts, Felix Martinez, B. F. Hammett, Jr., and others.

Galveston—Oil Wells.—Chartered: Success Oil Co., with capital stock of $225,000, by R. S. Rowland, Ed. McCarthy and S. H. Atkinson.

Houston—Woolen Mill.—It is proposed to organize a $50,000 company for the establishment of a woolen mill. Business League can give information.

Houston—Shovel Factory.—A. Chancey of Terre Haute, Ind., and W. C. Sanford of Kalamazoo, Mich., are endeavoring to interest local parties in the organization of a $50,000 company to manufacture shovels.

Honey Grove—Oil-press Heater Factory.—Chartered: Oil Press Heating Co., with capital stock of $30,000, for manufacturing the O. B. Galbraith oil-press heater, by O. B. Galbraith, T. J. Cole and C. B. Bryan.

Kaufman — Mercantile. — Incorporated: Ware & Dansby Company of Kaufman, capital stock $8000, by D. M. Dansby, Sam Ware and J. D. Dansby.

Ladonia—Mercantile.—Incorporated: Blakeney-Stevens-Jackson Company, capital stock $30,000, by C. T. Jackson, W. S. Stevens and F. W. Blakeney.

Orange—Refinery.—C. B. Forward Reduction Co. (composed of Cincinnati capitalists), previously reported as organized for operating in the Beaumont district, has decided to establish its refinery at Orange, where company has purchased 8000 acres of land, as mentioned recently. Storage tanks will be located along the route of the pipe line with capacity for holding 25,000,000 gallons of oil. Sam Hains is local agent for company.

Orange — Brick Works. — Company with capital stock of $10,000 has been organized for establishment of brick works with capacity of 25,000 per day. C. A. Murphy, formerly of Lake Charles, La., will have charge of plant.

Palestine—Ice Factory and Cotton Gin.—Palestine Ice, Fuel & Gin Co., recently reported organized, will erect an ice plant of 150 tons daily capacity and a cotton gin.

Port Arthur—Cooperage.—Central Asphalt & Refining Co., 189 La Salle street, Chicago, Ill., intends to build a cooperage in connection with its work at Port Arthur, as recently reported; capacity 3000 light and slack barrels per day.

Sealy—Mattress Factory.—Sealy Cotton Mattress Manufacturing Co., reported recently as incorporated, succeeds D. Haynes & Son, and will enlarge its business.

Uvalde — Irrigation Canals. — Chartered: Uvalde Irrigation Co., capital $3000, to construct dams, lakes, reservoirs, canals, etc., for irrigation in Uvalde and Zavalla counties; incorporators, W. H. Baylor, W. F. Wise and T. P. Roberts.

Winnie—Irrigation System.—L. P. Featherstone and associates will sink eight or ten artesian wells, build pumping station and irrigating ditches and levees for the cultivation of rice lands.

VIRGINIA.

Alexandria—Furniture Company.—Walter & Mann Furniture Co. has been incorporated, with capital stock of $4100, by W. T. Walker of Savannah, Ga. (president), and others.

Alexandria — Real Estate. — Miller-Shoemaker Real Estate Co. has been incorporated, with capital stock of $25,000, by F. E. Shoemaker (president) and others.

Crewe—Ice Plant.—W. L. Wilborn will erect the ice plant reported lately; capacity will be five tons.*

Graham—Water-works.—Town will construct a system of water-works. Address clerk of council.*

Hampton — Water-works.—A. L. Osgood and James M. Cumming have been granted franchise for construction of a system of water-works.

Harrisonburg—Ice Factory.— Rockingham Creamery Co. contemplates installing a 10-ton ice plant.*

Hiltons—Salt and Oil Wells.—G. C. Harris of Bristol, Tenn.; J. D. De Jannett, W. B. Roberts of Plasterco, Va.; H. E. Graves of Bristol, Tenn., and others have organized a $100,000 stock company for developing oil wells and salt deposits near Hiltons.

Leesburg — Electric-light Company.—Beverly Chichester has been granted franchise for erection of poles for new electric-light company which will establish plant.

Lynchburg — Water-works.— New machinery, including installation of meters, etc., will be added to the water-works; W. C. V. Randolph, superintendent.

Lynchburg—Mercantile.—Clinton De Witt, R. S. Oglesby and others have incorporated Oglesby-De Witt Company, for dealing in dry goods, etc., with capital stock of not more than $100,000.

Mason's Cove—Coal Lands.—R. Lee Smith of Roanoke, Va., has purchased and optioned about 11,000 acres of coal lands for a New York syndicate that proposes thorough developments.

Norfolk—Amusement Park.—Battery Park Amusement Co. has incorporated, with capital stock of $25,000, for establishing Amusement Park. J. E. Duke is president; J. H. Livingstone, general manager, and T. J. Wool, secretary. Manager's office in Citizens' Bank Building.

Richmond — Oil-land Development. — Edward W. Townsend, representing Townsend & Reed of Chicago, Ill., is organizing stock company for developing oil lands in Southwestern Virginia.

Richmond — Business Association.— Chartered: East End Business Association, with capital stock of from $5000 to $25,000, by W. H. Newton, president; Thomas Jackson, vice-president, and A. S. Singleton, treasurer.

Roanoke—Barrel Factory.—Geo. W. Freese, Box 386, contemplates establishing factory for making about fifty apple barrels per day.*

Roanoke—Machine Works.—Roanoke Mathometer Co. has been incorporated, with capital stock of $100,000, for manufacturing and selling computing machines. Dr. Joseph A. Gale is president; M. G. McClung of Salem, treasurer, and Walter R. Staples of Lynchburg, secretary.

WEST VIRGINIA.

Blaine—Coal Mines.—Philadelphia (Pa.) syndicate has purchased plant of Blaine Coal Co., will improve same and greatly increase mining output.

Cameron—Water-works.—Town is preparing to issue the $7000 of water-works bonds voted recently. T. C. Pipes is mayor.

Clarksburg—Coal Lands.—V. L. Highland, as trustee for several local parties, has purchased 15,000 acres of coal lands in Wetzel county, which will be developed.

Clarksburg—Woolen Mill.—R. F. Lowndes has decided to rebuild his woolen mill recently burned; new building will cost $20,000, and equipment will be larger than that of destroyed plant.

Clarksburg—Tannery.—Geo. H. Maxwell of Titusville, Pa. (proprietor of Queen City Tannery), has made a proposition for the establishment of a $100,000 tannery at Clarksburg.

Grafton—Coal Mines, etc.—S. W. Schraeder, president of Monarch Coal & Coke Co., has purchased the property of the Imperial Coal & Coke Co., including 1386 acres of coal land, tipple and miners' dwellings, and will increase capacity of the mines from 200 to 600 tons.

Grafton—Coal Mines.—Theo. Bush and others have under option a large tract of coal land, as recently reported, but have no intention at present of operating same; report of proposed erection of coal tipple is premature.

Grafton—Cold-storage Plant.—Armour & Co. will build $18,000 cold-storage plant at Grafton.

Keyser—Table Factory.—Keyser Table Works will build an addition and install machinery for increasing capacity.

Logan County—Coal Lands.—R. Lee Smith of Roanoke, Va., has closed a contract for 26,825 acres of Logan county coal lands for an English syndicate; purchase price said to be $800,000.

Mannington—Glass Factory.—Mannington Glass Works, manufacturer of milk jars, with capacity of about 18,000 per day, will enlarge by erection of an additional building and a variety of flint glassware will be added to production.

Minverton—Coal Mines.—Chartered: Diamond & Forest Hill Colliery Co., with capital stock of $50,000, to operate coal mines, by J. B. Lewis, Handley, W. Va.; William Brown, Mount Carbon, W. Va.; N. S. Burlew, Charleston, W. Va., and others.

Moundsville—Paper Mill.—T. Rubel Manufacturing Co. of Pittsburg, Pa., is the name of company recently reported as investigating with a view to establishing paper mill in Moundsville. This branch will be incorporated with capital stock of $150,000. Special machinery required is said to have been ordered, and work to begin at once on erection of the plant.

New Martinsville—Oil Wells.—L. S. Hoyt of New Castle, Pa., will begin at once development of 1200 acres of oil lands around New Martinsville.

Pruntytown — Reservoir. — State Reform School, William G. Worley of Kingwood, president, will construct a reservoir with capacity of 200,000 gallons of water.

Weston—Glass Works.—J. F. Adamson of Hartford City, Ind., is seeking site at Weston for erection of glass works.

Wolf Summit—Coal Mines.—John T. Solon and Edward F. Lowery, reported recently as having leased 3000 acres of coal lands and to erect two large plants for developing, have, with C. Spriggs Sands, L. S. Horner and A. L. Johnson, incorporated the Solon-Lowery Coal Co.; plants will have capacity

of 5000 tons per day, electric machinery to be used.

INDIAN TERRITORY.

Chickasha — Compress. — Chickasha Compress Co. has been incorporated, with capital stock of $40,000, by B. H. Benson, R. K. Wooten and others.

OKLAHOMA TERRITORY.

Cannon City—Land Improvement.—L. E. Minton, T. B. Metcalf, Frank Carpenter and others have incorporated Cannon City Townsite Co., with capital stock of $11,000.

Lawton—Oil Wells and Copper Mines.—Asphalt Oil Mining & Manufacturing Co., recently reported incorporated, is developing oil fields of Comanche county, and expects to develop copper mines. Address Robert T. Conover.*

Lawton — Publishing. — Chartered: State Democrat Publishing Co., with capital stock of $15,000, by L. T. Russell, J. C. Tousley, J. Roy Williams and others.

Mountain Park—Realty Company.—Chartered: Southwestern Realty & Investment Co., with capital stock of $10,000, by C. E. Hunter of Enid, George Sturgeon, W. B. Poole and A. C. Dolde.

Oklahoma City—Oil Wells.—Chartered: Frisco Oil Co., with capital stock of $150,000, by J. W. Grant, F. R. Holt, J. B. Rolater and others.

Sickles — Land Improvement.—Chartered: Sickles Townsite Co., with capital stock of $5000, by J. O. Welborn of Sickles, Joseph McNamara and F. A. Thomas of Geary, O. T.

BURNED.

Carthage, N. C.—Summit Hotel; estimated loss $15,000.

Chaires, Fla.—J. H. Patterson's gin and grist mill; estimated loss $3000.

Honey Grove, Texas.—McGee & Wagoner's cotton gin; loss $2500.

Larkinsville, Ala.—McCutchen & Evans' cedar mill.

Nicholson, La.—Queen & Crescent Lumber Co.'s planing mill and dry-kilns; estimated loss $80,000.

Owingsville, Ky.—Joe Chambers' distillery; estimated loss $6000.

Scotland Neck, N. C.—Scotland Neck Cotton Mills reported damaged to extent of $7000 by fire and water.

Stephens City, Va.—M. J. Grove Lime Co.'s plant damaged to extent of $1000.

Westminster, Md.—John H. Marker's flour mill and grain elevator; estimated loss $20,000.

BUILDING NOTES.

Atlanta, Ga. — Club. — Atlanta Athletic Club has accepted plans of Bleckley & Tyler for erection of proposed one-story building 50x200 feet, with all modern improvements.

Baltimore, Md.—Custom-house.—J. K. Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids January 8 for foundations, superstructure and roofing of United States custom-house, in accordance with plans, etc., copies of which may be had on application to above, or to Hornblower & Marshall, architects, 1509 H street N. W. Check for $250 must be submitted with request for plans.

Baltimore, Md.—Factory.—American Construction & Supply Co., 70 Broadway, New York, states that the recent report as to its having accepted plans from John K. Peebles of Richmond, Va., for erection of factory in Baltimore is not true.

Baltimore, Md.—Apartment-house.—Company reported recently as being formed by Samuel Rosenthal and others for erection of apartment-house at Laurens street and Eutaw Place has incorporated as the Eutaw Place Apartment Co., with capital stock of $300,000. Samuel Rosenthal is president; Douglas H. Gordon, treasurer, and Alexander Hammill, secretary.

Baltimore, Md. — Clubhouse. — Maryland Steel Co. has had plans made by Owens & Sisco for erection of a one-story frame clubhouse at Sparrow's Point.

Beaumont, Texas.—Store Building.—T. H. Langham will erect a two-story store building 89x108 feet.

Birmingham, Ala.—Dwellings.—Collington & Thompson have permit to erect four brick, stone and terra-cotta residences, tile and slate roof, with all modern conveniences, to cost about $30,000.

Brownwood, Texas—Jail.—County will hold an election December 21 to decide issuance of $30,000 of bonds for constructing a new jail. Address "County Clerk."

Bryan, Texas—Business Block.—Dr. J. W. Howell will erect a business block.

Catonsville, Md.—Dwelling.—Dougles H. Thomas of Baltimore is preparing plans for erection of a $10,000 cottage for Henry Pratt Janes.

Charleston, W. Va.—Office Building.—W. A. Bradford has had plans made for erection of brick and iron store and office building.

Clarksburg, W. Va.—Cottages.—Howard Coal Co. will build sixty-five miners' cottages.

Fairmont, W. Va.—Office Building.—Fairmont Coal Co. will erect an eight-story brick office and business block to cost $100,000.

Greensboro, N. C.—Commercial Building.—J. W. Scott & Co. will erect a three-story commercial building.

Greensboro, N. C.—Office Building.—Cone Export & Commission Co. will erect an office building.

Greenville, Tenn.—Jail.—Pauly Jail Building & Manufacturing Co. of St. Louis, Mo., has received contract at $5250 for enlarging county jail at Greenville. New story of brick and steel will be added and entire building equipped with steel cells.

Gulfport, Miss.—Hotel.—J. L. Haley will erect a brick or steel hotel.

Jackson, Miss.—Jail.—County will build an $8000 jail. Address "County Clerk."

Jacksonville, Fla.—Building.—Jacksonville Wheelmen will erect a $6000 brick building, fitted with pool and billiard tables, gymnasium, bowling alleys, etc., as previously reported.

Jacksonville, Miss. — Courthouse. — Hinds county supervisors have awarded contract to Thompson & Bro. of Birmingham, Ala., for erection of proposed $75,000 courthouse.

Jennings, La.—Hotel.—T. C. Mahaffey has received plans for his $25,000 hotel recently reported; building will be three stories, 44x125 feet, all modern improvements.

Johnson City, Tenn.—Buildings.—Contract for erection of administration building, mess hall, two ward buildings and a corridor for Federal Soldiers' Home has been awarded to J. E. Parrish of Lynchburg, Va., at $183,479.

Linden, Ala.—Courthouse.—Marengo county is considering the erection of a new courthouse. Address "County Clerk."

Livingston, Ala. — Courthouse. — Sumter county will rebuild its courthouse recently reported burned; W. A. C. Jones, clerk.

Louisville, Ky.—Church.—Haven M. E. Church will erect a $10,000 building, of brick, with stone trimmings, 50x200 feet. Address "Pastor Trinity M. E. Church."

Louisville, Ky.—Hotel.—The $200,000 company reported recently to be incorporated for operating Seelbach's Hotel will be known as Seelbach Hotel Co., organized by Louis Seelbach, Otto Seelbach and Chas. Seelbach of Lexington, Ky., and others.

Martinsburg, W. Va.—Church.—S. A. Westenhaver has received contract at about $5000 for erection of the new Presbyterian church.

Morganton, N. C. — Residence. — W. H. Sloan has received contract for erecting a $15,000 residence for Andrew Kistler.

Nashville, Tenn.—Telephone Buildings.—Cumberland Telephone & Telegraph Co. has leased two three-story buildings, and will expend $4000 in remodeling same; will also remodel present building.

Nashville, Tenn.—Church.—Russell Street Cumberland Presbyterian Church does not expect to erect its proposed new edifice for perhaps eighteen months; about $20,000 will be cost. Geo. W. Shelton is pastor.

New Orleans, La.—Office Building.—Tulane University will build seven-story office structure, steel frame, elevators, electric lighting and other modern improvements.

New Orleans, La.—Clubhouse.—Crescent City Jockey Club will erect a clubhouse and grandstand with seating capacity for 5000.

Norfolk, Va.—Church.—Congregation of Ghent Presbyterian Church will erect new church, and wants plans from architects. Address F. S. Royster.

Oklahoma City, O. T.—Office Building.—Dr. J. A. Ryan and F. Caruthers will erect a three-story office building.

San Antonio, Texas—Bank Building.—San Antonio National Bank will erect building, five stories, brick and stone, to cost $30,000. Skerving & Boyd have contract.

Tennallytown, D. C.—Residence.—Dr. Louis W. Engster will build frame dwelling to cost $4500.

Washington, D. C.—Dwellings.—George Korhler will build $7000 frame dwelling at 1446 Meridian avenue. A. Gillam will erect two-story frame dwelling to cost $5596 at 3016 Highland avenue. Stephen B. Priest, 711 Fourteenth street N. W., will erect three brick dwellings to cost $3000 each.

Wheeling, W. Va. — Apartment-house.—Geo. R. Taylor and O. T. Rhodes are having plans made by E. B. Franzheim for erection of an apartment-house, of brick, 67x120 feet.

Windsor, N. C.—Residence.—J. C. Gurley contemplates erecting residence to cost $2500, to have furnace heat and calcium or gasoline light plant.

Winston, N. C.—Office and Theater Building.—Efforts are being made for the erection of an office building and theater, and estimates are wanted from contractors. Address Wm. A. Blair.

RAILROAD CONSTRUCTION.

Railways.

Austin, Texas.—The Missouri, Kansas & Texas Railroad Co., it is reported, has decided to extend its system to Austin, and representatives of the company are now negotiating for right of way within the city limits. S. B. Fisher at St. Louis is chief engineer of the company.

Beaumont, Texas.—The latest report concerning the proposed extension of the International & Great Northern Railroad to Beaumont is that it has been officially decided upon. The estimated length of the extension is sixty-five miles, from Spring, Texas, to Beaumont. Leroy Trice at Palestine, Texas, is general manager.

Beaumont, Texas.—It is reported that officials of the St. Louis Southwestern Railroad have been examining the Gulf & Interstate Railroad with a view to possibly purchasing and repairing the line for use as an extension to Galveston. F. H. Britton at St. Louis is vice-president of the company.

Buford, Ga.—A charter has been secured by the company promoting an electric railroad between Buford and Cumming. The estimated length of the line is sixteen miles. Among those interested are R. W. Shadburn of Cumming and M. S. Garner of Buford.

Charleston, W. Va.—The Kanawha Valley Traction Co. has been incorporated in West Virginia to build the proposed electric railroad to connect Charleston and St. Albans. Among those interested are J. Carmick and J. E. Chilton of Charleston. The company is capitalized at $200,000.

Chester, W. Va.—It is reported that the Pennsylvania Railroad Co. has let contracts to grade an extension of what is known as the New Cumberland branch from Chester to Monaca, Pa. Thos. McNally and Booth & Flynn of Pittsburg, Pa., have secured the contracts. It is reported that the work includes a bridge across the Ohio river.

Cold Springs, Texas.—The business men of Cold Springs are agitating a railroad from this town to Clinesburg. A company may be formed to build it.

Columbus, Ga.—The business men of Columbus are agitating the extension of the Atlantic, Valdosta & Western Railroad from Valdosta to Columbus. The directors of the company have decided to build an extension northwest. E. C. Long at Jacksonville, Fla., is president of the company.

Dallas, Texas.—It is reported that the Choctaw, Oklahoma & Gulf Railroad Co. has decided to extend its system to Dallas from Asher, Okla. F. A. Mollitor at Little Rock, Ark., is engineer.

Dallas, Texas.—A. B. Wilgus, president of the Dallas & New Mexico Railroad Co., advises the Manufacturers' Record that it has secured sixty miles of graded line between Letot and Boyd, Texas; also a franchise to build within the city limits of Dallas. The entire length of the road will be seventy-five miles, and it is stated will be constructed as soon as possible. John T. Witt is engineer.

Denison, Texas.—The Denison, Bonham & New Orleans Railroad has been completed between Bonham and Denison, a distance of twenty-eight miles. It is to be built to Wolfe City, a total distance of forty-two miles. R. C. Foster at Denison is president of the company.

Fairmont, W. Va.—It is reported that Henry Schmulbach has become interested in the proposed electric railroad between Fairmont and Clarksburg, and that the line is to be completed within the next year. It will be twenty-seven miles in length, and the section in Fairmont is now in operation.

Fayetteville, W. Va.—The Greenbrier & Gauley River Railroad Co. has been incorporated in West Virginia to build through a portion of Pocahontas county, to terminate at the mouth of the Gauley river, in Fayette county. Among those interested are Preston S. Warn and W. H. Warn of Pocahontas county.

Florence, Ala.—A. W. Wills of Nashville, Tenn., is interested in the Florence Northern Railroad, being surveyed between Florence and a point in Tennessee. Peter Arlund of Louisville, Ky., is also one of the promoters.

Fort Smith, Ark.—The Fort Smith & Western Railroad Co. announces that it has decided to extend its line to Guthrie, Okla. A portion of the road is now under contract. George Hayden of Ishpeming, Mich., is president of the company.

Fort Thomas, Ky.—A. S. Berry and others of Newport, Ky., are interested in a proposed electric railroad between Fort Thomas, Alexandria and Cold Springs, and a company may be formed in the near future to take up the project. The estimated length of the line is eight miles.

Gulf, N. C.—Mr. Frank D. Jones, superintendent of the Durham & Charlotte Railroad Co., states that the road is now in operation between Gulf and Star, a distance of thirty-four miles. It is intended to complete it as soon as possible to Troy, a distance of seven miles from Star. An extension is in progress between Gulf and Pittsboro.

Guthrie, Okla.—It is announced that President Rouse of the Missouri, Kansas & Texas Railroad has confirmed the report that the system is to be extended immediately from Coffeyville, Kan., to Guthrie, a distance of 130 miles. S. B. Fisher at St. Louis is chief engineer.

Heavener, I. T.—The Arkansas Western Railroad has been completed from Heavener to Cauthron, Ark., and trains are in operation between these points. It is expected to complete the line to Waldron, Ark., a total distance of thirty-one and one-half miles, during the present year. C. C. Godman at Fort Smith, Ark., is president of the company.

Hickman, Ky.—A report is current that the Nashville, Chattanooga & St. Louis Railroad Co. is considering an extension from Hickman to a connection with the St. Louis, Iron Mountain & Southern system at Charleston, Mo., which will include a bridge across the Mississippi river near Hickman. J. W. Thomas, Jr., at Nashville is general manager of the company.

Jackson, Tenn.—G. R. Johnson is president of the company which is promoting a line from Clifton to Jackson. The Commercial Club of Jackson is interested in the project.

La Follette, Tenn.—It is reported that the Tennessee Northern Railroad will be extended to Hartranft, Tenn., where it will connect with what is known as the Mineral Springs Railroad, to be built between Middlesboro and Hartranft. The promoting company has secured a franchise to build in Middlesboro. The Tennessee Northern Railroad is in operation between La Follette Junction and Rex, Tenn., a distance of twelve miles. E. F. Warner is general agent of the company.

Lufkin, Texas.—M. L. Lynch, chief engineer of the St. Louis Southwestern Railroad Co., confirms the report that the company may extend east from Lufkin. Arrangements have been made to make surveys at once.

Maryville, Tenn.—The Little River Railroad Co. has been chartered in Tennessee to build through a portion of Blount county and along the Little river valley to a point on the State line between North Carolina and Tennessee. Among those reported as interested are A. W. Lee and William M. McCormick.

Mobile, Ala.—It is reported that Arthur C. O'Connor of Detroit has become interested in the Mobile & Western Alabama Railroad, being promoted by H. Austill and others. A meeting was recently held at Mobile in the interest of the project. The estimated length of the line is 350 miles, and the route includes Demopolis, Tuscaloosa and Florence, Ala.

New Berne, N. C.—It is stated that William Marvin, an Ohio capitalist, is interested in the proposed railroad between Washington and New Berne, and that the necessary rolling stock has already been purchased with a view to constructing the road immediately.

New Decatur, Ala.—The business men of New Decatur have offered to subscribe to enough of the stock of the Central of Alabama Railroad Co. to induce the building of this line between Decatur, Jasper and Tuscaloosa. It is stated that the Citizens' Trust Co. of Cincinnati will float bonds to finance the undertaking. John Carlisle of Cincinnati is one of the principal promoters.

New Orleans, La.—Percy L. McCoy of New Orleans and Robert P. Duncan of New York are interested in the New Orleans & Mississippi Midland Railroad Co., which has been chartered in Louisiana to build from New Orleans to Pontococ, Miss., an estimated distance of 340 miles.

Norman, Okla.—The Oklahoma & Indian Territory Electric Railway Co. has been organized to build the proposed line between South McAlester, I. T., and Lawton, Okla. The estimated length of the line is 170 miles, and the company is capitalized at $1,500,000. Among those interested are H. W. Helvie and John W. Mosher of Norman.

Norton, Va.—The railroad being built by the Indian Creek & Pound River Company has been graded about fourteen miles. It is intended to reach timber property owned by W. J. Stevens of Titusville, Pa. This is the line which has been referred to as the Norton & Pound River Gap Railroad.

Parkersburg, W. Va.—The Virginias & Southern Railroad Co. has been incorporated to complete a road from Parkersburg to Newport News, Va. Among those reported as interested are Charles W. Lynch and Charles D. Elliott of Charleston, W. Va.

Paul's Valley, I. T.—A. J. Hemstreet, who is interested in the Kiowa, Chickasha & Fort Smith Railroad between Paul's Valley and Erin Springs, informs the Manufacturers' Record that its total length will be twenty-five miles. Surveys have been completed and right of way secured. John Scott & Son of St. Louis have received the contract, and have begun work. The road will be a branch of the Santa Fe system when completed.

Pine Bluff, Ark.—A correspondent of the Manufacturers' Record writes that the Pine Bluff & Western Railway Co. is now extending its line from Doylestown to Sheridan, a distance of about twelve miles, and contracts have been let. The Sawyer & Austin Lumber Co. of Pine Bluff is interested in the road.

Shawnee, Okla.—Work has begun upon the Oklahoma Western Railroad at Fort Gibson. It is to extend from Fayetteville, Ark., to Fort Gibson, Muscogee and Shawnee. Chas. H. Duffey is president of the company, and Chas. Roser, engineer.

St. Louis, Mo.—The Central Belt Railway Co., which proposes building a line through a portion of St. Louis county, is capitalized at $1,500,000. It is stated that the road is to be constructed as soon as possible. William K. Kavanaugh of St. Louis is president of the company.

Timpson, Texas.—The Timpson & Northwestern Railroad has been completed a distance of nine miles from Timpson to timber property owned by the railroad company.

Tusculum, Tenn.—A correspondent of the Manufacturers' Record writes that a proposition has been made to the trustees of Tusculum College in the interest of a trolley line between Tusculum and Greenville. It is stated that the proposition has been accepted by the trustees.

Vicksburg, Miss.—Surveys are now in progress on the line proposed from Philadelphia to Ackerman, Miss., an estimated distance of forty-two miles. R. L. Engle, engineer, may be addressed at Ackerman.

Warrior, Ala.—Among those interested in the Long Branch Coal & Railroad Co., recently organized in Alabama, are President M. H. Smith of the Louisville & Nashville, and H. W. Bruce of the same company. It is reported that the new road will be a branch of the Louisville & Nashville, and that the first section will be seven miles in length. Mr. Smith may be addressed at Louisville, Ky.

Wheeling, W. Va.—It is reported that the Baltimore & Ohio Railroad Co. is making surveys for a line between Wheeling and Connellsville, Pa., paralleling the route proposed by the Pittsburg, Connellsville & Wheeling Company.

Yorktown, Va.—It is reported that the Northern parties referred to as promoting the railroad between Yorktown and Hampton have secured the franchise of the Yorktown, Poquosin & Hampton Railway Co., and will carry out this project. O. D. Jackson of Norfolk has been elected president, and F. H. Jackson of Norfolk, secretary. The directors include W. H. T. Loyall of Norfolk and H. M. Phillips of Williamsburg, Va.

Street Railways.

Chattanooga, Tenn.—Final surveys are being made for the proposed incline railroad to the summit of Lookout mountain, in the suburbs. If built, it will be constructed by the Chattanooga Electric Railroad Co., of which J. H. Warner is president.

Important Improvement.—Water has always given more or less trouble in the filtering of waste oil. The Burt Manufacturing Co. of Akron, Ohio, has perfected an attachment for the Cross Oil Filters which successfully overcomes this difficulty—an improvement which makes an already good filter better.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Agricultural Implements.—See "Merchandise."

Barrel Machinery.—Geo. W. Freese, Box 386, Roanoke, Va., wants to communicate with manufacturers of barrel machinery.

Belting.—See "Foundry Equipment."

Boilers and Engines.—Mengel's Machinery Exchange, 26 East Balderston street, Baltimore, Md., is in market for good second-hand 75 to 125-horse-power horizontal boilers, 10 to 30-horse-power portable engines and boilers, 25 to 75-horse-power plain slide-valve horizontal engines, 12 to 25-horse-power hoisting engines and boilers; wants full description and lowest cash price.

Broom Machinery.—W. B. Nethery, Cornelia, Ga., is in market for broom machinery.

Canal Work.—See "Irrigation Canals."

Charcoal.—Sterling Blower & Pipe Manufacturing Co., Hartford, Conn., wants prices on charcoal per bushel, to be shipped to Southern points in barrels; give prices f. o. b. shipping point.

Cotton Machinery.—Edenton (N. C.) Cotton Mills wants to correspond with manufacturers of cotton-batting machinery.

Crematory.—Bids will be opened December 12 for furnishing materials and constructing garbage crematory at Dallas, Texas, for the city, capacity to be of twenty-five or fifty tons. Hugh Raines, city engineer, can give particulars.

Electrical Machinery.—See "Motor."

Electrical Machinery.—Ladshaw & Ladshaw, Spartanburg, S. C., are preparing specifications of water-power and electrical machinery, to include five 54-inch turbines driven by horizontal direct connection, three 750-kilowatt revolving field-type alternators mounted on quills, wheels operated under head of twenty-two feet four inches, etc. W. T. Weaver Power Co. of Asheville, N. C., W. T. Weaver, president, is to own plant.

Electrical Machinery.—See "Engine."

Engine.—R. J. Gatling, 3650 Lindell Boulevard, St. Louis, Mo., wants to purchase gasoline engine of thirty horse-power.

Engine.—T. K. Hudgens, 309 E. Main street, Laurens, S. C., wants prices on sewing machines, six-horse-power steam engine and a 30-light dynamo.

Fluor-spar.—W. D. Howe, Gaffney, S. C., wants addresses of parties mining fluor-spar.

Foundry Equipment.—Charlotte Pipe & Foundry Co., Charlotte, N. C., will purchase one No. 5 power blower, pulleys, shafting, hangers, leather belting, etc.

Foundry Equipment.—New Century Heating & Ventilating Co., P. O. Box 84, Cincinnati, Ohio, is in the market to purchase metal-working tools for making ranges, stoves and hot-air furnaces.

Galvanizing Machinery.—R. W. Southerland, Mobile, Ala., wants to correspond with manufacturers of machinery for galvanizing wrought iron, forgings, small castings, small sheets and sheet-metal articles; to be galvanized after they are made.

Gasoline Engine.—See "Engine."

Ice Plant.—W. L. Wilborn, Crewe, Va., will contract for five-ton ice plant.

Ice Plant.—Rockingham Creamery Co., Harrisonburg, Va., wants estimates on installation of 10-ton plant.

Irrigation Canals.—L. F. Daniell, city engineer, Beaumont, Texas, is preparing to let irrigation-canal contracts for several private companies.

Laundry Machinery.—W. B. Nethery, Cornelia, Ga., is in market for laundry machinery.

Laundry Machinery.—A. A. Turner, Forsyth, Ga., wants prices on laundry machinery.

Lighthouse and Metal Work.—W. A. Jones, lieutenant-colonel United States Army, post-office building, Baltimore, Md., will open bids December 6 for constructing lighthouse at Point-No-Point, Md., and for metal works for same. Separate bids to be considered. Copies of plans and blank proposal forms on application.

Lighthouse Beacon.—Col. A. N. Darrell, United States Army, Mobile, Ala., will open bids December 12 for furnishing materials and constructing beacon at or near former site of Half-Moon Shoal lighthouse, Galveston bay, Texas. Copies of specifications and blank proposals on application.

Merchandise.—E. D. & J. L. Andrews, Greenwood, S. C., want catalogues and prices of plow steel, wire and cut nails, barbed wire, farming tools, wood and willowware, etc.

Metal-working Machinery. — See "Steel-working Machinery."

Mining Equipment.—Asphalt Oil, Mining & Manufacturing Co., Lawton, O. T., will need machinery for development of oil wells and for developing copper mines. Address Robert T. Conover.

Motor.—Soule Steam Feed Works, Meridian, Miss., is in market for about 12-horse-power motor.

Paints.—J. W. Miner, Ronda, N. C., wants quotations on ready-mixed and cold-water paints.

Paving.—Bids will be opened December 14 at Newport News, Va., for certain specified paving work, different methods to be considered. Plans and specifications and proposal forms can be obtained on application to E. A. Marye, city engineer.

Printing Machinery.—Oklahoma Printing Co., Oklahoma City, O. T., wants Potter angle perfecting press to print six, seven and eight columns; also two-revolution four-roller book and job press; Campbell or Meihle preferred; must be in first-class condition.

Railway Equipment.—Hyman Supply Co., New Berne, N. C., is in market for 100 tons of 20 or 25-pound relaying rails.

Sewing Machines.—See "Engine."

Shafting and Pulleys. — See "Foundry Equipment."

Steel-working Machinery.—James & Co., Chattanooga, Tenn., want addresses of builders of machines for stamping out steel wheelbarrow trays.

Stove Foundry.—See "Foundry Equipment."

Sugar Mill.—W. M. Andrus, Richmond, Texas, wants to buy second-hand small sugar mill, and asks full description.

Water-power Machinery.—See "Electrical Machinery."

Water-works.—Town of Graham, Va., is in the market for outfit for water-works. Address "Clerk of Council."

Welding Compound.—W. D. Howe, Gaffney, S. C., wants addresses of manufacturers of welding compound.

Well-drilling Machinery. — See "Mining Equipment."

Well-drilling Machinery and Supplies.—V. Z. Caracristi, New Iberia, La., wants proposals on 200,000 feet 20-inch cast-iron pipe and seventy tons lead for joints; also wants catalogues of compressors, oil-well machinery, gas and oil-burning appliances.

Well-drilling Machinery and Supplies.—Ozark Oil Co., H. L. Davis, secretary, Prairie Grove, Ark., will be in the market for general oil-well supplies, rope, casing, etc.

Woodenware.—See "Merchandise."

Woodworking Machinery.—J. D. Ezzell, Dunn, N. C., wants to correspond with manufacturers of machinery for making chairs.

Woodworking Machinery.—Brown Furniture Co., J. S. McCubbins, Jr., secretary, Salisbury, N. C., wants to correspond with manufacturers of machinery for making furniture, mantels, etc.

Woodworking Machinery.—J. W. Emerson, manager Florida Iron and Wood Works, Apopka, Fla., wants from one to three second-hand veneer machines; also a medium-weight second-hand double surfacer planer.

TRADE NOTES.

Office in New Orleans.—The Rockwell Engineering Co. of 26 Cortlandt street, New York, has appreciated the opportunity for selling apparatus for burning fuel oil in the Southwest, and has been obliged to open an office in New Orleans, which will be in charge of Mr. J. D. Hackstaff.

Opportunity for Investment.—Manufacturers and others will be interested in an advertisement in another column of the sale of a corn and a flour mill located at Petersburg, Va. Both mills are well equipped with machinery, and have a large capacity. Satisfactory reasons for the sale are given. The Cockade City Mills Co. at Petersburg may be addressed.

Because It Protects.—Among the gold medals awarded at Buffalo was one to the International Acheson Graphite Co. of Niagara Falls for its exhibit of artificial graphite and carborundum. One claim made for the Acheson graphite is that it is an excellent protection for iron, as the Acheson paint pigment contains over 90 per cent. carbon, a much larger quantity than the pigment made of natural graphite.

Tested By Time.—Several years ago a down-draft forge-shop equipment was installed in the shop of the Cleveland, Cincinnati, Chicago & St. Louis Railroad Co. at Wabash, Ind., by the Buffalo Forge Co. of Buffalo, N. Y. In a recent letter Mr. Wm. Garstang, superintendent of motive power of the company, writes that he considers the forges a success, and believes that there is nothing better adapted for this special service.

Believer in Expositions.—The Atlas Pipe Wrench Co., 121 Liberty street, New York, manufacturer of the Atlas Pipe Wrench, is a believer in exposition, as its sales of pipe wrenches show a wonderful increase in the last few months, a great deal of it due directly to the Pan-American Exposition, at which it gave a practical demonstration of the workings of the pipe wrench, and was awarded the highest medal for pipe wrenches.

Modern Tunnel Ventilation.—The Railroad Gazette of August 30 presents an interesting photograph of the west portal of the Elkhorn tunnel on the Norfolk & Western Railroad, which clearly shows the Sturtevant fans upon either side of the entrance arranged in such manner as to create an induced flow of air, which serves to ventilate the tunnel to a degree of success never before accomplished in a passage of this character.

More Orders.—The Ball Engine Co., Erie, Pa., will furnish three tandem compound engines arranged for direct connection to Westinghouse generators for the Pennsylvania Railroad Co.'s Arcade Building, Philadelphia, Pa. The Bisbee Improvement Co. of Bisbee, Mont., has recently ordered a compound engine from the company for its electric plant. M. R. Williams & Co. of Piedmont, N. Y., have also installed an engine built by the Ball Company.

Still They Come.—Apparently there is no cessation in the business of the Fred W. Wolf Co. of Chicago, Ill. A few recent orders include Texas, Oklahoma, Indiana, Michigan, Idaho, Florida, Illinois, Cuba and Wisconsin. They indicate the wide range of territory covered by the Wolf Company. The apparatus comprises refrigerating and ice-making machinery for numerous purposes. The Cuba order is intended for the Havana Brewery. A Chicago order includes piping for a large apartment-house.

Away Behind Orders.—Such is the statement contained in a letter from the Long & Allstatter Co., the well-known manufacturer of power punches, shears and agricultural implements at Hamilton, Ohio. The showing it made at the Pan-American Exposition gave an idea of the high grade of its apparatus. It exhibited a multiple punching machine, a combined horizontal punch and bender, a single upright punching machine, also a double-angle shear mounted on a turntable. All of the mechanism was driven by electric motors, and attracted much attention.

Saves Money to People.—This is the reputation which Mr. Walter A. Zelnicker of St. Louis has, for the reason that his specialties for lumbermen and others are carefully selected and of the highest grades. He has placed on the market the Trojan shingle band, which is made of a high grade of steel billets, and guaranteed to be strictly reliable. The band is only one-half an inch in width, and two gauges thinner than the ordinary band, yet it is claimed to be as strong. Something new is the oil-finish shingle band, which does not rust. It is carried in stock in standard lengths, but can be made in lengths up to twenty inches. Dealers and others would do well to correspond with Mr. Zelnicker relative to these articles.

A Liberal Policy.—The city of Burlington, Vt., is becoming a very important industrial center, owing to its liberal policy towards manufacturers who desire to locate within its limits. The Lumiere North American Co., Limited, a branch of the well-known French corporation of this name, has recently secured thirty acres of land in Bur-

lington, and will erect an extensive plant for the manufacture of photographic supplies. The company is capitalized at $1,000,000. The city has exempted it from taxation for ten years, and will make similar concessions to other industries which might be located at this point. Messrs. Houston & Wright, the well-known real-estate brokers of Burlington, offer for sale several valuable plants and sites for manufacturers, which are referred to elsewhere.

A Model Factory.—The new plant recently completed by the Coe Manufacturing Co. of Painesville, Ohio, may be called a model of its kind, as the works are equipped for the use of electric-power, and are lighted by electricity. The shops, which are constructed of brick according to the most modern ideas in factory building, are heated by the hot-blast system, and are located adjacent to the "Nickel Plate" Railroad system, connected with it by switch tracks. The Coe Company makes a specialty of veneer machinery, and secured first prize at the Pan-American Exposition through the high grade of goods displayed. Several large orders were received as one of the results of the exhibit. The company has been in existence since 1852, when it was organized under the name of Coe & Wilkes. Upon the retirement of Mr. Wilkes, about eighteen months ago, it was reorganized under the present title with Mr. Harry Coe in charge. It is one of the largest makers of veneer machinery in the country.

An Important Industry.—An important addition to Southern industrial interests is the project of the Meldrum Camphor & Chemical Co., recently organized with $500,000 capital stock. The company has been formed to manufacture camphor, celluloid crystals and by-products, using the process of the Globe Manufacturing Co. It is calculated to produce at least fifty tons of camphor and other products monthly at its plant at Blackshear, Ga. The works will be under the supervision of Mr. Archibald Meldrum, president of the company, who has a wide reputation as a chemist, and it is stated that the location is one of the best in the country for the purpose intended. It is calculated that a plant producing three tons per day can be constructed for about $60,000, leaving an ample amount for working capital and other purposes. The capitalization is 50,000 shares of preferred stock at 6 per cent. interest and 50,000 shares of ordinary stock, the par value of each being $5. The present issue will comprise 27,000 shares of each at par. Investors and others will find further particulars of the enterprise in the advertising columns.

TRADE LITERATURE.

Original Advertising.—The Dexter Portland cement, so well known to architects, engineers and other building experts, is referred to in a little pamphlet recently published by Messrs. **Samuel H. French & Co.** of Philadelphia, sole agents for this compound. The pamphlet has the merit of being original, and tells some very valuable facts, briefly and to the point. Here are a few of the trite sayings it contains: "Your reputation and your client's money are staked on the stability of the structures you build. Can you take risks?" "The cement you use is of paramount importance. It is the binding material. You cannot afford to use any but the best." "You test your cement to be sure you have the best! That adds, perhaps, ten cents per barrel to your client's cost."

The First Steam Generator.—Although the uses of steam have really become wonderful in variety, the first steam was generated in a very simple manner—by means of the humble but very useful teakettle. Mr. Charles H. Paine, the well-known sales agent of the Wainwright steam appliances, has happily utilized this idea in illustrating some literature which he has recently issued. The cover is embellished with an artistic design of the teakettle, from the nozzle of which the steam is pouring in volumes. The appliances which Mr. Paine represents do not need more than a general mention, as they have found such favor with steam-users generally. They are manufactured by the Taunton Locomotive Manufacturing Co. of Taunton, Mass., and include the Wainwright even-flow heater, the Wainwright steam-tube heater, the Wainwright surface condenser and the Wainwright expansion joint. Mr. Paine also has the agency for apparatus manufactured by the Messrs. James Bonar & Co. of Pittsburg, Pa., including the noted Bonar oil filter and gauge cock and the Pittsburg feed-water heater and purifier. The literature referred to will be sent on application to Mr. Paine, Singer Building, Broadway and Liberty street, New York.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Bank Wanted.

The Manufacturers' Record is in receipt of a letter from a Western banker who desires information from Southern towns in which there is an opening for the establishment of a bank. Letters addressed to "J. A.," care of Manufacturers' Record, will be forwarded.

New Corporations.

H. C. Rice and others have organized a new bank at Denmark, S. C.

E. O. Barker and others have organized the Farmers and Merchants' Bank at Seiling, Okla.

A bank has been organized at Amoretti, Okla., by H. K. Bickford of Alva, Okla., and others.

The Coweta National Bank, recently organized at Newnan, Ga., has elected R. H. Hardaway, president.

Arrangements are being made to organize a bank at Siler City, N. C., with $10,000 capital stock. J. J. Jenkins is cashier.

W. J. Atkinson of St. Louis is reported to be interested in another trust company to be formed in that city with $1,000,000 capital stock.

A charter has been issued to the Bank of Bridgeport, Okla., organized by G. E. McKinnis of Shawnee and L. A. Cross of Bridgeport.

Horace Harby has been elected president of the Sumter Insurance Agency, recently chartered at Sumter, S. C., with $6000 capital stock.

The Bank of Commerce has been chartered at Gulfport, Miss., with $25,000 capital stock. Among those interested are J. R. Kelly and S. H. Tomlinson.

Arrangements have been made to open a bank at Wilburton, I. T., with $20,000 capital stock. L. W. Bryan has been elected president, and C. J. Baugh, secretary and treasurer.

The Mannington Building and Loan Association, recently organized at Mannington, W. Va., is capitalized at $325,000. The incorporators include C. C. Coffman and F. E. Furbee of Mannington.

New Securities.

Local investors have purchased the issue of $6000 in bonds of Gallatin, Tenn.

The town of Lake Providence, La., has voted in favor of issuing $20,000 in 5 per cent. improvement bonds. Address the mayor.

The town of Corsicana, Texas, has decided to issue $25,000 in 3½ per cent. bonds for school purposes. Address the mayor.

The town of Bennettsville, S. C., has voted in favor of issuing bonds for improvements. The mayor may be addressed.

The town of Biloxi, Miss., will vote December 23 on the question of issuing $40,000 in improvement bonds. Address the town clerk.

J. F. Hartley of Cairo, Ill., has purchased the issue of $26,000 in 4 per cent. bonds of Caruthersville, Mo., at a fraction above par.

The city authorities of Birmingham, Ala., have voted in favor of issuing $16,500 in 6 per cent. improvement bonds. Address the mayor.

Bids will be received until December 20 for the issue of $27,000 in 5 per cent. bonds of the town of Houma, La. H. M. Wallis, Jr., mayor, may be addressed.

The town of Kirkwood, Mo., will vote November 30 on the question of issuing $25,000 in bonds for water-works. The mayor may be addressed.

The town of Martin, Tenn., will vote November 30 on the question of issuing $7500 in school bonds. The town clerk will give further particulars.

The city authorities of Huntsville, Ala., have decided to receive bids until January 27 for the issue of $40,000 in improvement bonds. The mayor may be addressed.

G. A. Slayden, mayor, may be addressed relative to the issue of $35,000 in improvement bonds offered by the town of Dickson, Tenn. Bids will be received until December 2.

It is probable that Clarke county, Georgia, will again vote on the question of issuing $33,000 in 4 per cent. refunding bonds. The board of commissioners may be addressed at Athens, Ga.

William Shelton, mayor, will receive proposals until December 9 for an issue of $44,000 in 5 per cent. bonds for various purposes to be placed on the market by the town of Marlin, Texas.

An election will be held in Hernando county, Florida, on December 31 to decide the question of issuing $30,000 in bonds. The board of commissioners may be addressed at Brooksville, Fla.

Bids will be received until December 2 for the issue of $7000 in improvement bonds for the town of Cameron, W. Va. The bonds will bear interest at the rate of 6 per cent. T. C. Pipes is mayor.

The city authorities of Dallas, Texas, have decided to again place the issue of $87,000 in refunding bonds on the market. An effort will be made to float them at 4 per cent. The mayor may be addressed.

Arrangements have been made to issue $175,000 in 5 per cent. bonds by the fifth levee district of Louisiana. Particulars relative to the issue may be secured from the board of commissioners, Cotton Exchange Building, New Orleans.

The city authorities of Macon, Ga., have decided to issue $900,000 in 4 per cent. refunding bonds if a bill to this effect is approved by the legislature. The bonds will be issued in place of 6 per cent. and other securities. J. W. Cabanis is one of the board of bond commissioners of the city.

The Manufacturers' Record is officially informed that the bonds to be issued by the Atlantic City ward of Norfolk, Va., aggregate $480,000. They will be issued for improvements, but before being placed on the market must be ratified by a vote of the city council. Nathaniel Beaman is mayor.

Financial Notes.

It is expected that the First National Bank at Austin, Texas, will be reopened December 1, with H. P. Hilliard, cashier.

Mexico and California—Personally-Conducted Tours via the Pennsylvania Railroad.

The Pennsylvania Railroad Co.'s personally-conducted tour to Mexico and California will leave New York on February 11, visiting St. Louis, San Antonio, Monterey, Tampico, San Luis Potosi, Guanajuato, Irapuato, Guadalajara, Queretaro, City of Mexico, Aguas Calientes and El Paso.

At El Paso tourists for California only, who will leave New York February 25, will join the party, and the Mexican tourists who do not care to go to the Pacific coast will return to New York. The California party will visit Los Angeles and the Southern California coast resorts, San Francisco, and on the return trip the Grand Canon of the Colorado in Arizona. Tourists will have thirteen days in Mexico and nineteen days on the Pacific coast, the California tour returning to New York on March 27, the whole tour covering forty-five days. The rate, covering all necessary expenses during the entire trip, will be $575 from points on the Pennsylvania Railroad east of Pittsburg. For Mexico only the rate will be $350, and for California only $375. The party will travel over the entire route in a special train of Pullman drawing-room sleeping cars, compartment, dining, smoking and observation cars. California only tourists will use special cars to El Paso, and Mexico only passengers will use special cars returning from El Paso. For detailed itineraries and full information address Geo. W. Boyd, assistant general passenger agent, Philadelphia, Pa. †

Electrical Application.—It is hardly necessary to say that electric-power is being used in a wonderful variety of industrial operations. Bulletin No. 207, issued by the Sprague Electric Co. of 527-531 West Thirty-fourth street, New York, gives an excellent idea of the various ways in which the Lundell motors can be used in newspaper and printing offices, lithograph works and textile mills, as well as for fans and pumps. The engravings show lithograph and printing presses operated by these motors, linotype machines connected to Lundell special motors and numerous other illustrations which indicate their practical value far better than columns of description. The bulletin is well worth studying by power-users.

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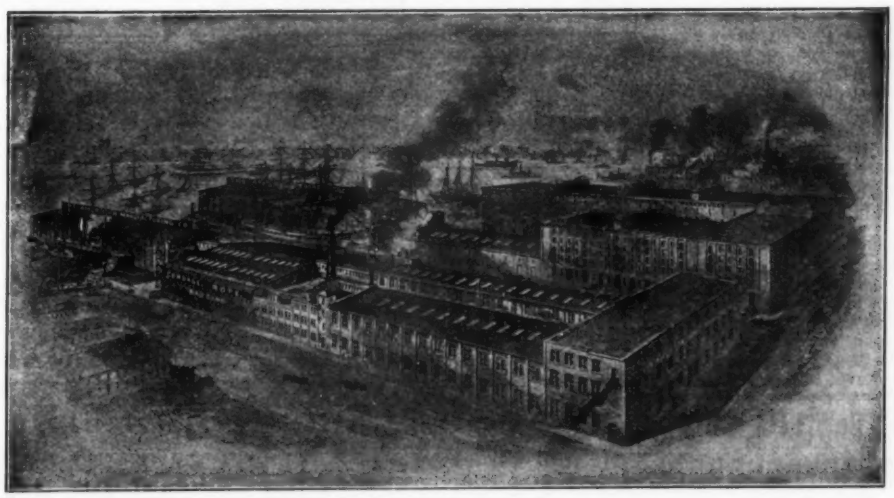

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Advertisements under this head will be inserted at the rate of one cent a word for each insertion.

WANTED—A superintendent capable of taking charge of, erecting and regularly superintending factory manufacturing 1, 2 and 3-ply Tar Paper, and this class of goods. CAROLINA PORTLAND CEMENT CO., Charleston, S. C.

WANTED.—A first-class Foundry Foreman in a foundry making a specialty of Corliss engines, hoisting engines, air compressors and a general line of loam and green sand castings. Address A, care Manufacturers' Record.

SITUATIONS WANTED.

Advertisements under this head will be inserted at the rate of one cent a word for each insertion.

WANTED.—Position by first-class electrician. Street railway, mine or factory works. Polyphase preferred. Best Northern references. Address X, care Manufacturers' Record.

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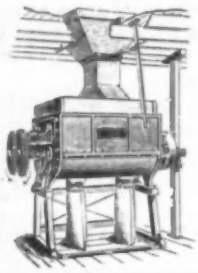

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Vacuum Pans

H. WM. DOPP & SON,
MFGRS.
1300-1310 NIAGARA STREET,
BUFFALO, N. Y.

PROPOSALS.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., November 23d, 1901.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 8th day of January, 1902, and then opened, for the foundations, superstructure and roofing of the U. S. Custom House at Baltimore, Maryland, in accordance with the drawings and specification, copies of which may be had, at the discretion of the Supervising Architect, on application to this office or the office of the Architects, Hornblower & Marshall, 1509 H Street N. W., Washington, D. C. Application must be accompanied by a certified check for $250, which will be held at this office until the return of drawings and specification. JAMES KNOX TAYLOR, Supervising Architect.

THE TOWN OF LOUISBURG, North Carolina, has voted (30.000.00) thirty thousand dollars for WATER WORKS and SEWERAGE. The Board of Commissioners will consider plans and estimates for the construction of these systems. Address
E. S. GREEN, Town Secretary,
LOUISBURG, N. C.

THE County Board of Commissioners of Spartanburg County, South Carolina, will receive bids until December 3d, 1901, for $50,000.00 of 20-year 4 per cent. coupon bonds of said county, bearing date January 1, 1902, interest payable 1st January and 1st July.

The right to reject any and all bids is reserved. These bonds are non-taxable.

The present bonded debt of the county is $213,800.00, and the assessed value of property is $11,803,371.00. Copy of act authorizing bonds and any further information can be had by addressing
J. D. LEONARD,
County Supervisor, Spartanburg, S. C.

$418,000
CITY OF ATLANTA, GA., 3½ per cent. Gold Refunding Bonds.

Sealed proposals will be received at the office of the Mayor of Atlanta, Ga., until 12 o'clock M., Tuesday, December 3d, 1901, for $418,000 City of Atlanta, Ga., 30-year 3½% Gold Coupon Bonds of $1000 each, due December 31st, 1931. Interest payable July and January in New York and Atlanta. Bids may be for the whole or part of said bonds. Bidders to enclose with bid certified checks for five per cent. of par value of amount bid for; check to be made payable to the order of Thos. J. Peeples, City Treasurer. Bidders will be required to receive and pay for bonds alloted them on December 31st, 1901. The right is reserved to reject any or all bids.
LIVINGSTON MIMS, Mayor.
WM. C. RAWSON,
Chairman Finance Committee.
For further information address J. H. Goldsmith, City Comptroller.

Notice to Contractors.

WILLIAMSON, WEST VA., Nov. 1st, 1901.
The County Commissioners for Mingo County, West Virginia, invite sealed proposals for the erection of a new County Court House, agreeable to the plans and specifications prepared by Architect Frank P. Milburn, Columbia, S. C. Said plans and specifications will be on file with the County Clerk of said County on and after November 11th, 1901. Bids will be received until 12 o'clock noon, November 30th, 1901. Each bid to be accompanied with a certified check for $1000, made payable to the Clerk of Mingo County Court, as evidence, if their bid is accepted, they will enter into contract at once with the County and file an acceptable bond for the faithful performance of their contract. The County Commissioners reserve the right to reject any and all bids. Test:
JAMES DAMRON, Clerk,
County Court, Mingo County, W. Va.

WATER-WORKS.

FAYETTE, MISS.
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Camphor and Celluloid Crystal Refiners and Manufacturing Chemists.

Incorporated under the Laws of the State of Delaware. Capital $500,000.

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ABRIDGED PROSPECTUS.

This Company has been formed to adopt and carry out an agreement between Archd. Meldrum, Manufacturing Chemist, Blackshear, Ga., U. S. A., (lately with the Blackshear Manufacturing Company, Blackshear, Ga.), and the Globe Manufacturing Company, Limited, Camphor Refiners and Manufacturing Chemists, 11 Mansion House Chambers, London, England, and whose works are situated at West Norwood, England, Hoboken, Antwerp, France, the said agreement being dated 2nd day of September, 1901.

The agreement comprises the sole rights of United States and Canada to manufacture Camphor, Celluloid Crystals, and by-products under the Globe Manufacturing Company's various processes.

The processes being secret, it is not desirable in the interests of the Company to give any details, but the secret documents have been duly sealed and deposited with the Company's solicitors as per agreement with Mr. Meldrum.

A working capital of $50,000 is ample for the manufacturing of 50 tons of camphor, celluloid crystals and by-products per month, and for which a market has already been acquired. The gross profit on this production is estimated to give, after bearing all charges, a sum not less than $120,000 for distribution on the Preference and Ordinary shares, leaving a sum of $70,000 for the purpose of reserve fund, or for further extention of the business.

The Company also acquires 250 acres of land, a dwelling house, and an abundance of fine timber. The purchase price for the land is $6,200; for the rights to manufacture, under the various processes, $282,000, leaving a balance of $211,800. The total cost for building works and installing plant and machinery capable of producing 3 tons per day is $61,800, leaving the working capital at $50,000, and $100,000 for future issue.

The only agreements existing are: 1st. Between the Company and Archd. Meldrum, wherein he sells to the Company the American rights for manufacturing at $282,000 and 250 acres of land, including dwelling house and timber at $6,200 total $288,200, payable as to $158,200 in cash and $130,000 in Ordinary shares.

2nd. Agreement between the Company and Archibald Meldrum, wherein the latter agrees to act as Managing Director for 10 years at a salary of $5,000 per annum.

3rd. Agreement between Archd. Meldrum and the Industrial Trust Company, 60-62 Liberty street, New York, as to the guaranteeing of this issue.

Mr. Meldrum will be a large stockholder, having agreed to accept a large portion of the purchase price in ordinary stock, thus showing the business will be conducted upon safe lines. Mr. Meldrum is a thorough, practical manufacturing chemist, understanding the practical manufacture of Camphor, its by-product, Borax, Boracic Acid, Sulphuric Acid, Arsenic, Starch, and many other chemicals too numerous to mention. Any improvements that Mr. Meldrum may bring out as regards reducing cost of manufacture, or new processes, become the property of the Company. This Company will consider the manufacture of various chemicals and *more especially* Arsenic, and for which there is a growing demand. A convention was held at Brunswick, Ga., on April 9, 1901, to consider the cultivation of the plant known as "Cassava." Starch can be manufactured at a low cost from this plant, and should it be planted to any great extent in this State, starch manufacturing will also be considered. It is estimated the Company will be in a position to fill orders early next year. Already arrangements have been and are being made for the sale of the total output of the Company's products.

The advantages of manufacturing at Blackshear are many. Firstly, the air is pure; secondly, the water is good and free; thirdly, labor is cheap; fourthly, transportation is easy, as the railroad would run into the works; fifthly, it is handy for New York and other markets, also for shipping. The imports of Camphor for year 1899 amounted to 1,807,541 lbs., valued at $322,100, and in 1900 1,789,580 lbs., valued at $485,071. It will be seen there is a good outlook for this Company.

No promotion money is being paid, and Mr. Meldrum pays all expenses up to allotment. Prospectuses and application forms may be had of the Bankers, Solicitors, Offices of the Company or Secretary.

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1 30x60 Harris Corliss right and left hand wheels, 58" face by 20 ft. diameter.
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1 20"x48" Geo. H. Corliss.
1 18x48 Greene.
1 10"x24" Harris Corliss.
3 12 and 20x12 Westinghouse Compound.
1 16 in. and 27 in.x16 in. Westinghouse compound
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2 12"x12" Ball automatic.
2 13 in.x14 in. Watertown automatic.
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1 15⅝ in.x16 in. New York safety automatic.
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22"x42" Wright Corliss.
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8"x 7" Upright Yoke Engine.
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76"x20' Farrell, compound rest, triple-geared, worm drive.
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18' swing pit lathe, very heavy.
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19'6" plate planer.

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26x40x48 in. Allis cross compound Corliss.
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40x72 in. R. H. Geo. H. Corliss.
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And all other sizes, both automatic and throttling governor engines, down to 4 H. P.
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1 1000-ft., 1¼-in. Sherman Cableway, with Lambert engine, complete.
Stiff Leg, Guy and Breast Derricks, hand and steam power.
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One 16x24 Standard Gauge with tender; One 15x18 Standard Gauge, saddle tank; One 10x16-3 foot Gauge with tender; One 9x16 Standard Gauge, saddle tank.

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Nine 3 yard, three foot gauge, dump cars; Twenty 3 yard, three foot gauge, dump cars; One 34" gauge flat car.

1,000 Foot Span Lidgerwood Aerial Dumping Cable Way.

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10 H. P. Gasoline Engine.
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Suitable for Factory or Private Dwelling.

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Two Return Flue Tubular Boilers, 6 feet diameter, 16 feet long; 116 tubes, 3" diameter, 15 feet long, with all fixtures for setting up. They are insured for 100 pounds steam pressure, and have no defects of any kind; practically good as new; large manhole under tubes.

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70 ton of 40 lb. steel T rails, new; also a Forney type saddle tank standard gauge Porter locomotive, cylinder 12x18, diameter of driving 42", thickness 2"; also an 8-wheel American type, Rodgers make, 14x22" cylinder.
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1 14" Planer and Matcher, key stone, of the Goodell & Waters make.
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Large assortment of Engines, Boilers, Pumps, Heaters; etc.

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3 100 H. P. Return Tubular Boilers, made by the Penn. Boiler Works (new, never having been in brick work) with stack and breeching complete.
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Automatic Engines—1 13"x14" self-contained, Chandler & Taylor. 1 12"x16" centre crank, Erie City Iron Works.
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Twenty-five Ton Refrigeration.
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First-class condition. Cost $10,000. Selling price to move quickly $2500.

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No.	H.P.	Maker.	Cylin.	Speed.	Whls.
2	150	Buckeye "C"	14¼x16	240	72x15
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1	125	"	11&19x11	300	
2	75	"	12x11	300	
1	75	N. Y. Safety	12x12	300	
1	100	Porter-Allen	12x20		
1	50	Arm. & Sims	9½x12		
1	325	Baragwanath Heater, brass tubes.			

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Five 72"x16' High Pressure Boilers, now carrying Hartford Insurance for 125 lbs. steam pressure. Can be delivered about January 10th next. Full line of all kinds of machinery in stock. Write for prices. Machinery that has been used, but in good condition, also bought.

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Wood and Iron Working Machinery,

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all sizes. Taken in trade for our Improved Berryman. In perfect order. Tested and guaranteed. Prices reasonable. BENJ. F. KELLEY & SON, Makers, 91 Liberty St., N. Y.

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100 h. p. 12x24 Buckeye Automatic.
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14x7x10 Smith-Vaile Fire Pump.
200 h. p. Baragwanath Heater.
45 h. p. 11½x18 Slide Valve.
60x16 ft. Tubular Boiler.
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The above are all in first-class condition and ready for shipment.

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DYNAMOS—Brand new, modern and guaranteed for one year, 110 volt, compound wound, self oiling—6-lt. $36; 14-lt. $56.25; 27-lt. $67.50; 40-lt. $90; 53-lt. $112.50; 67-lt. $135; 93-lt. $146.25; 105-lt. $161.25; 130-lt. $183.75; 200-lt. $206.25; 270-lt. $228.75. **MOTORS**—110 volt, brand new, guaranteed for one year—¼ horse $28 50; ½ horse $36; 1 horse $56.25; 1½ horse $60; 2 horse $67.50; 3 horse $90; 4 horse $112.50; 5 horse $135; 7 horse $146.25; also larger ones. Special prices on 220 and 500 volt motors. Second-hand dynamos, in first-class condition—700-lt. dynamo $325; 130-lt. $135; also smaller ones. **Alternating Current**—2 1300-lt. Westinghouse alternators, $385 each. **Engines**—50 h. p. $300; 100 h. p. $475; 125 h. p. $650; 150 h. p. $750; 250 and 350 h. p. engines; also larger and smaller at low prices. **Boilers**—2 90 h. p. $260 each; also larger and smaller boilers. **Feed-Water Heaters**—Berryman, about 700 h. p., $175, and smaller ones. **Generators**—100 K.W., 500 volt. $675, and larger and smaller ones. Pulleys, Shafting, Belting, &c. Write us for what you want.

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FLOATING PILE DRIVERS
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Hydraulic Car Wheel Presses,

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New design. Prices reasonable. Write for full particulars.

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General Electric, three phase, sixty cycle, **Inductor Motors**

1 15-H. P. 110 volt, speed 900, price $350.00
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1 Fairbanks Gasoline Engine (30 horse power). This engine is new and complete in every particular, including a 40-gallon galvanized tank, 1 box batteries, fixtures, piping, belting, and an extra 525-gallon galvanized gasoline tank. Will sell at a great bargain. 1 Steam Fire Engine, late from Baltimore department. 4 Hoisting Engines, 12, 15, 18 and 25-horse power respectfully. A number of single and duplex Steam Pumps. Cistern, Deck and Deep Well Pumps (new). General machine work and repairing. I make a specialty of repairing Steam Pumps, High-speed and Gasoline Engines.

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375. 13x12 Ball automatic.
163. Armington & Simms cross compound, 13¼x 20¼x15.
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217. 15x16 Ball automatic.
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148. 12x20x12 Westinghouse.
220. 11x19x11 Westinghouse.
222. 14x24x14 Westinghouse.
0x9. 18x30x16 Westinghouse.
297. 8½x10 Taylor-Beck automatic.
047. 22x60 Harris Corliss.
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60. 13x34 Putnam Corliss.
75 20x30 slide valve.
76. 18x28 Nicol-Burr slide valve.
1044. 16x28 slide valve.
235. 20x40 Nordburg slide valve.
213. 12x24 slide valve.
173. 13x34 Fitchburg Corliss.
132. 16x24 slide valve.
206. 14x24 box bed slide valve.
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154. Two 50 H. P. Otto gas and gasoline engines.

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810. 10x16 double drum, double cylinder, Mundy hoisting engine.
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753. 8¼x12 double, single drum.
377. Locomotive boiler with hoisting rig attached.
108. 8x12 Webster, Camp & Lane double cylinder, single drum.
55. 8x12 single cylinder hoisting engine and boiler.

BOILERS.
469. 4-54x15, no dome.
004. 175 H. P. Heine water tube.
005. 120 H. P. Sterling water tube.
676 60x12 vertical fire box.
686. 66x16 tubular.
688. 66x18 tubular.
708. 66x14 tubular.
716. 4-72x20 tubular, no dome.
007. 80 H. P. locomotive fire box boiler.
008. 100 H. P. locomotive fire box boiler.
009. 50 vertical, from 2 to 20 H P.
010. 20 locomotive fire box boilers, from 10 to 40 H. P.
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337. 1 straight line steam driven air compressor, made by National Drill & Compressor Co., 20x22x24
890. 5¾x7x10 Norwalk air compressor.
896. Hall duplex air compressors, steam driven 10x12x12, 6x8x8 and 8x10x10. 1 Hall duplex belt driven air compressor, 6x6.
902. 1 Hall duplex air compressor, 7x8x9.

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Rebuilt & Guaranteed. Immediate Delivery.

1 pair (twin) 20"x42" Green-Corliss Engines. 1 16¾"-32"x36" Cross Compound Fitchburg. 2 20"x42" right hand Green Automatics. 1 14"-27"x14" Westinghouse Compound. 1 22"x32" Watertown Automatic. 1 13"-20"x16" McEwen Compound. 3 15½"x15" Armington & Sims. 2 14½"x15" Beck Automatics. 1 15"x14" Ideal. 1 13"x14" Fitchburg Vertical Automatic. 2 12"x18" Russell. 1 10"-18"x12" Ball Tandem Compound. 2 80 H. P. Westinghouse Compounds. 3 75 H. P. Westinghouse Standard Automatics. 2 65 H. P. Westinghouse Compounds Also a great many others, all types. Send for special list.

BOILERS.—12 Water Tube Boilers, 165 to 200 lbs. steam pressure 28 Hor. Tubular Boilers.

Several full Railway and Electric Lighting Equipments. Large stock of Machine Tools. Also a large assortment of New Machinery, for immediate delivery—Lathes, Planers, Shapers, Drill Presses, Milling Machines, Dynamos, Motors, Gas and Gasoline Engines, Steam and Centrifugal Pumps. Contractors' and General Supplies.
Write for special catalogue and prices.

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Long Distance Telephone 261-262.

ENGINES and BOILERS FOR SALE.

Prices Low. Quality High.

ENGINES—Second-hand.
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8x 8—35 H. P. Automatic High Speed, "Ball."

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8x10—30 H. P. Plain Slide Valve, Valley.
10x12—50 H. P. Plain Slide Valve, Valley.
3, 6, 10 H. P. Vertical, second-hand.

BOILERS—Second-hand.
27, 30, 35, 40, 50, 65, 70, 75, 80 H. P. Hor. Tubular.
3 125 H. P. Hor. Tubulars, each 72"x16'x4".
6 to 60 H. P. Vertical.
16 and 60 H. P., Locomotive Type.
Large assortment Wood-workers Machinery.
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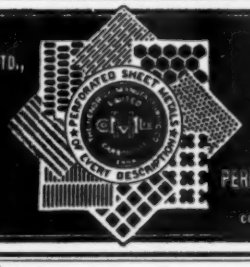

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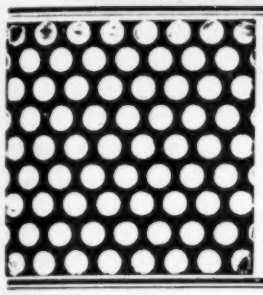

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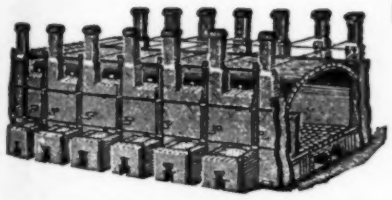

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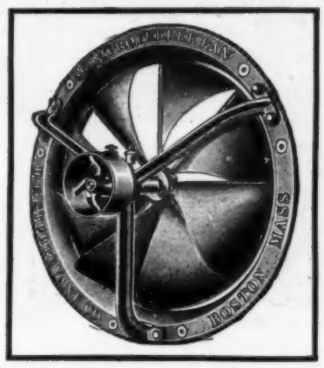

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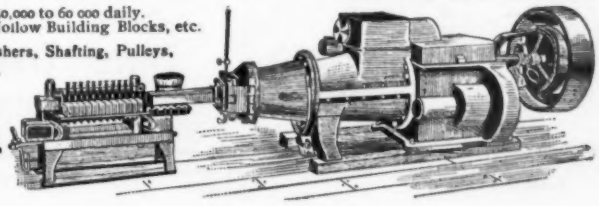

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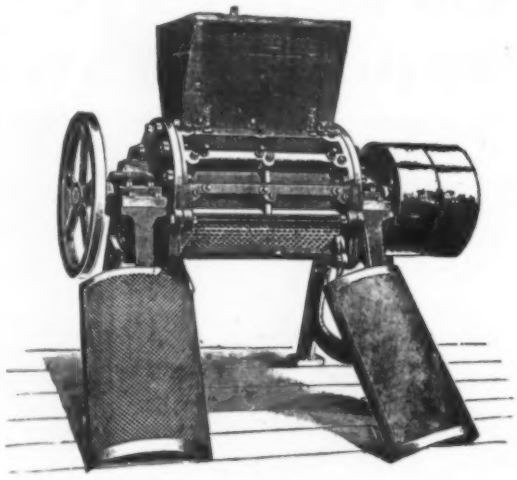

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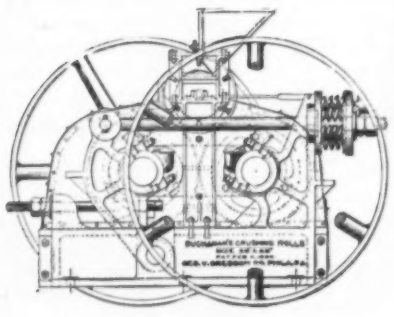

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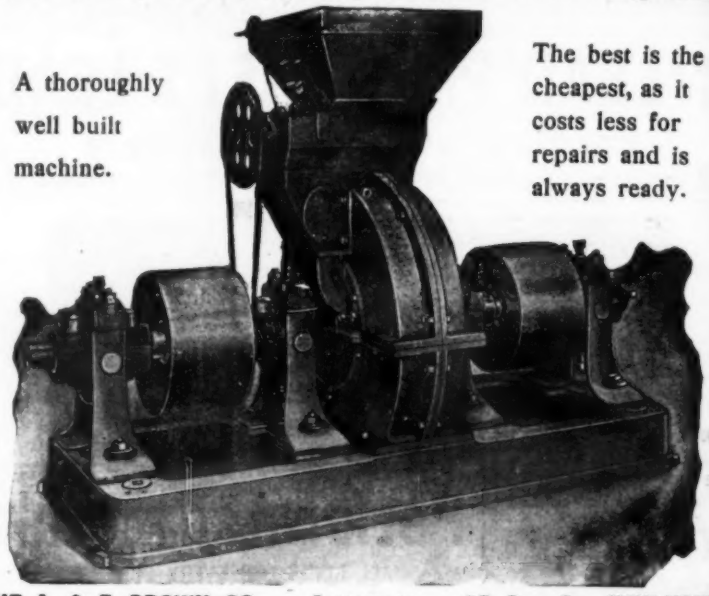

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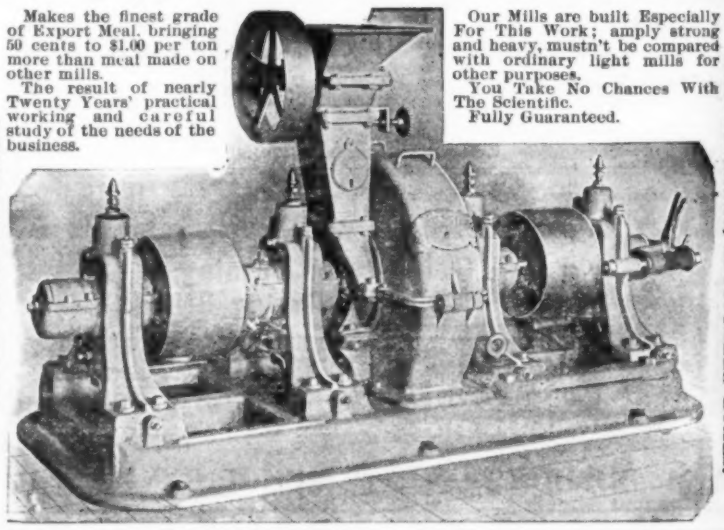

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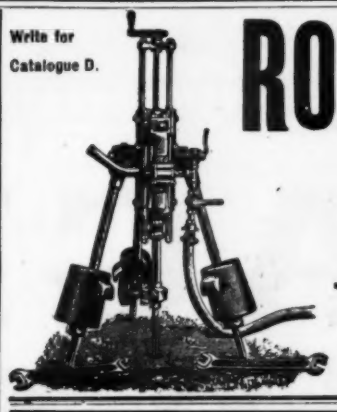

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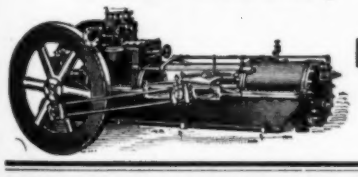

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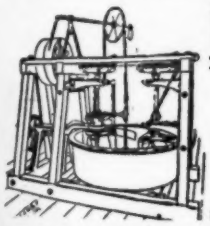

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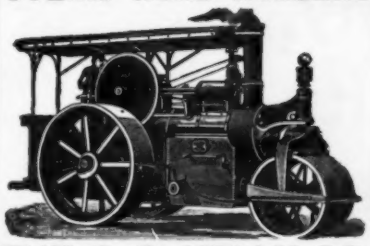

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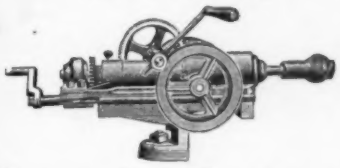

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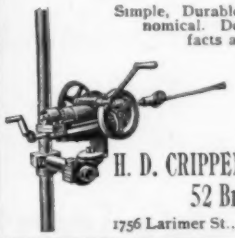

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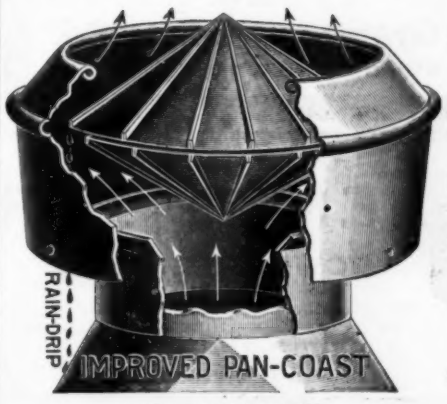

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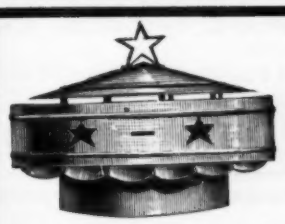

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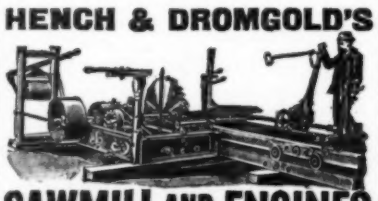

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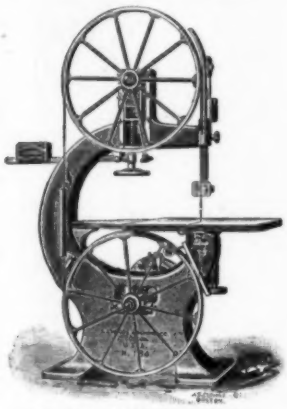

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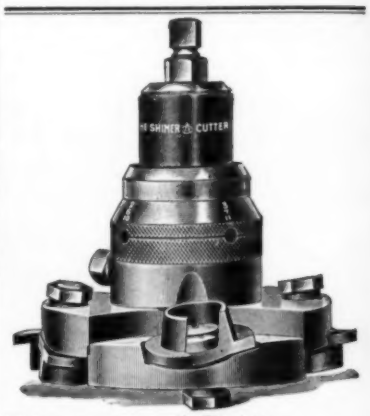

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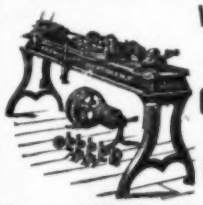

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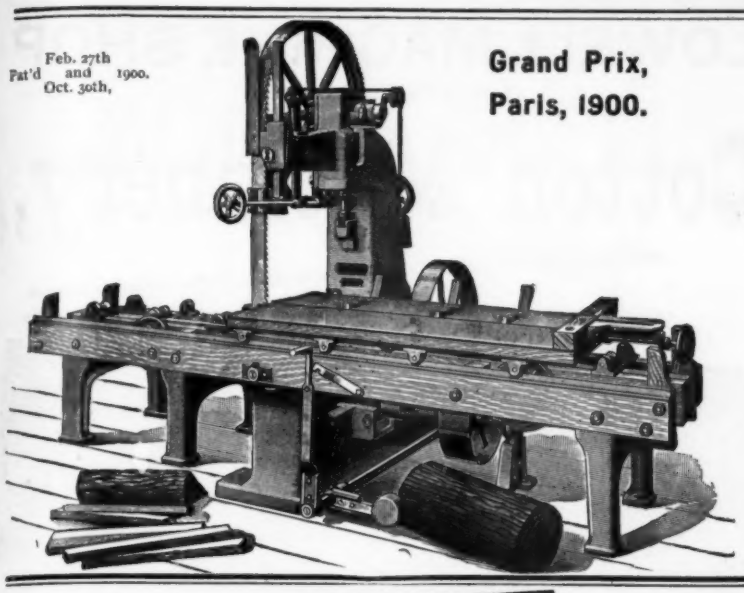

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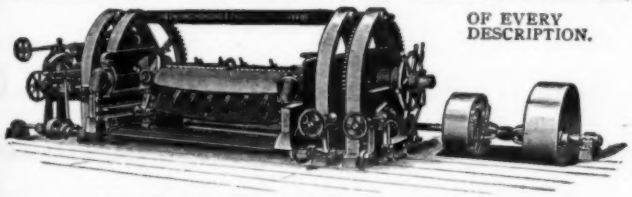

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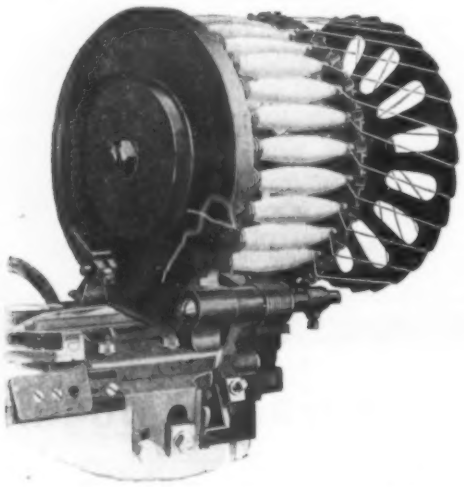

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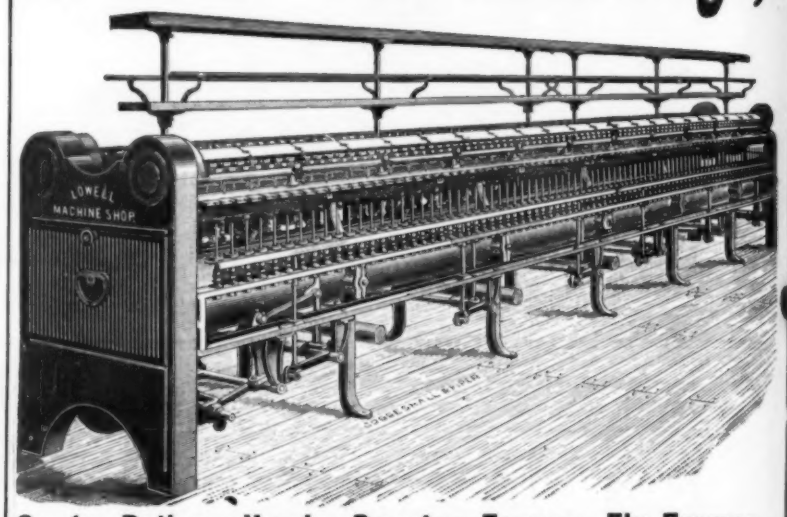

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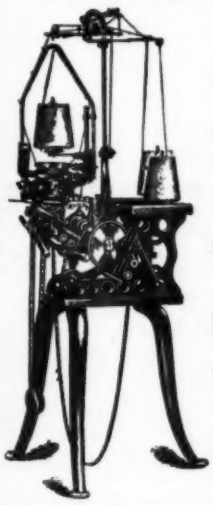

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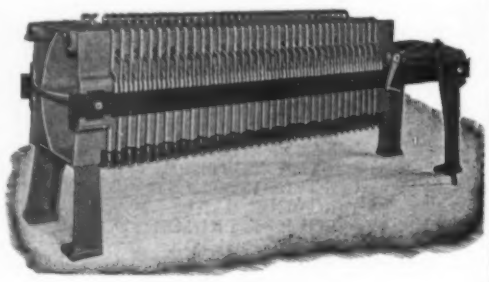

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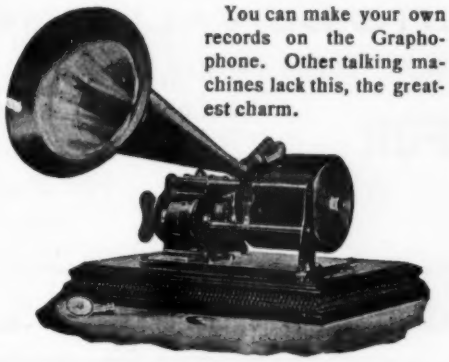

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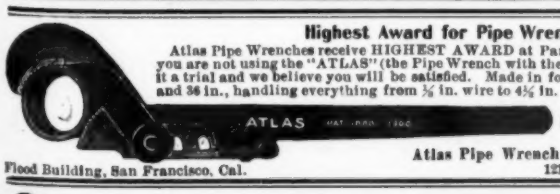

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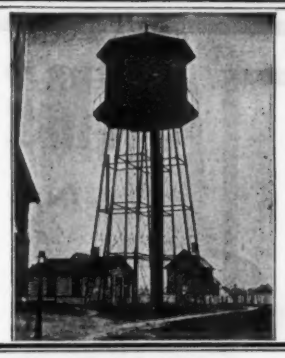

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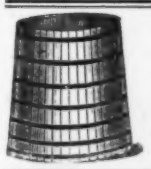

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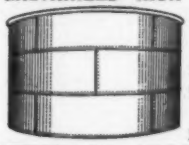

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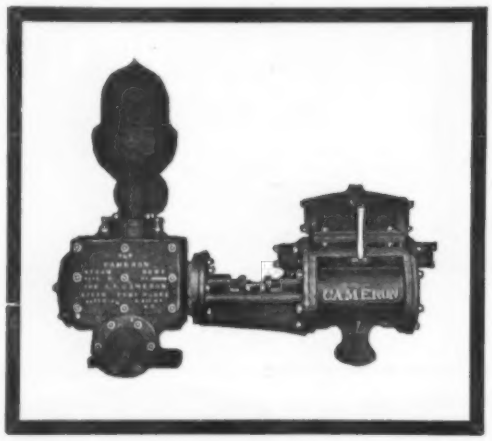

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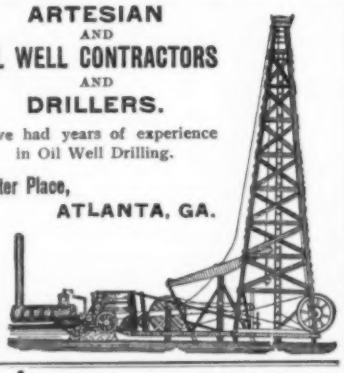

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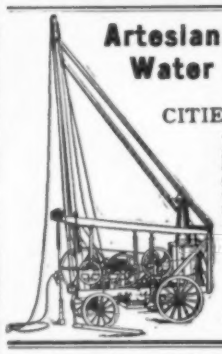

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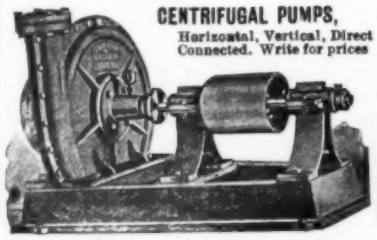

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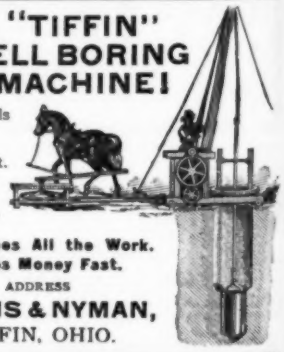

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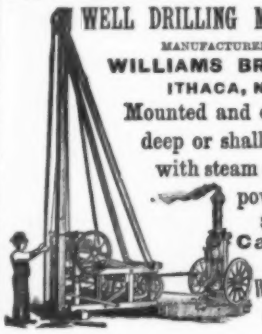

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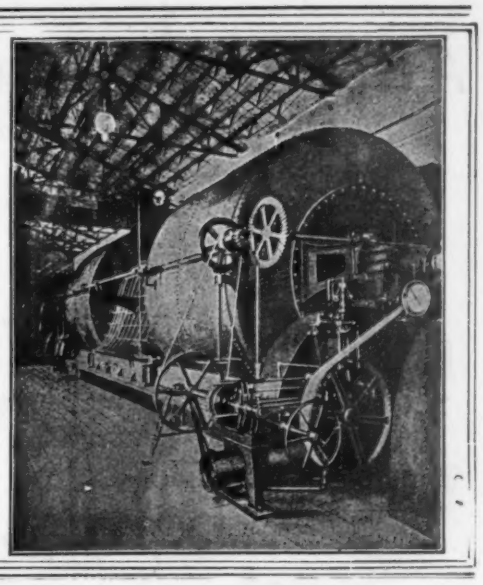

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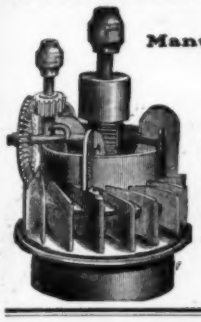

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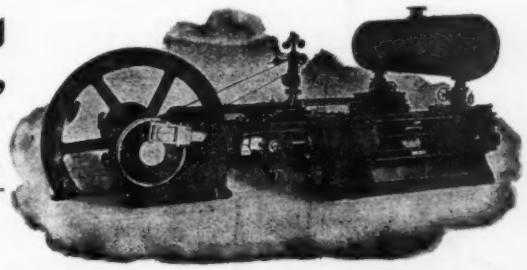

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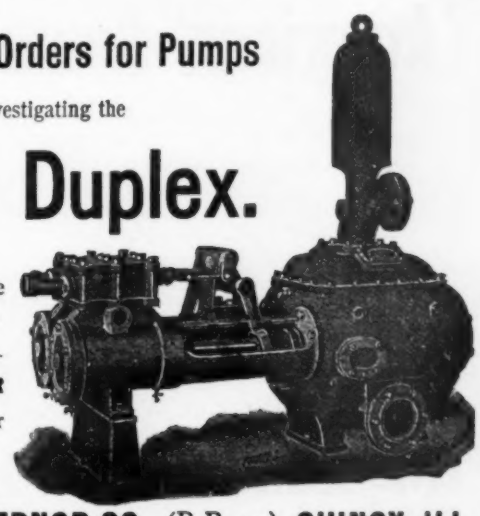

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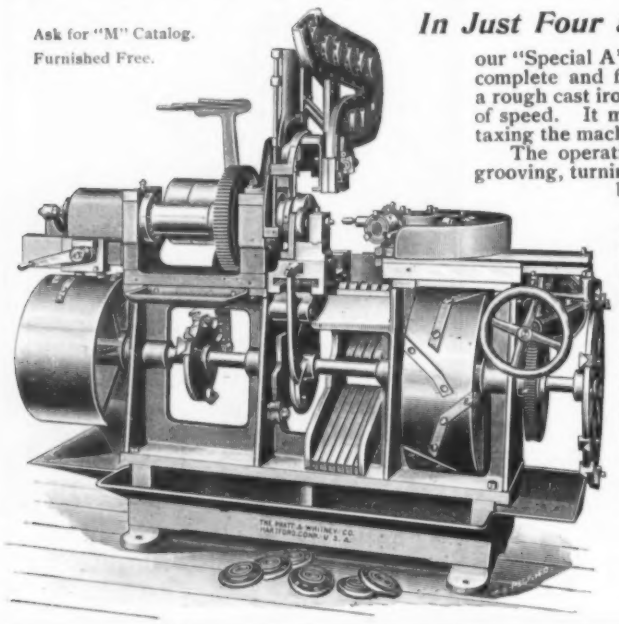

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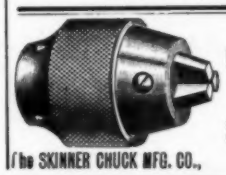

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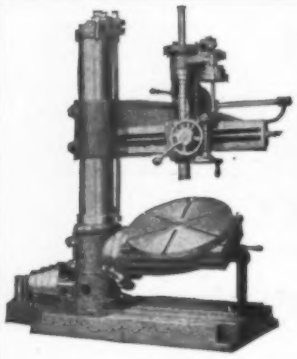

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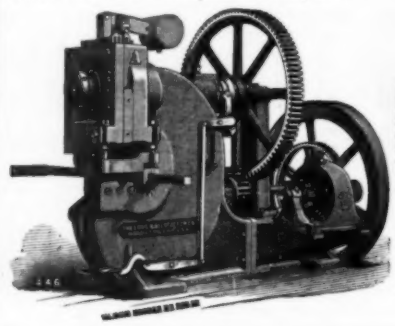

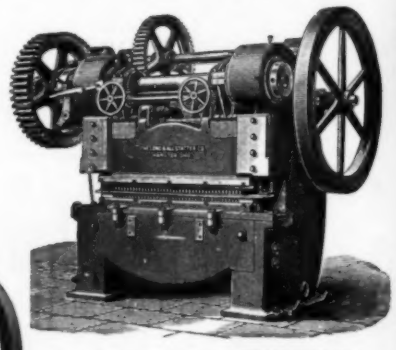

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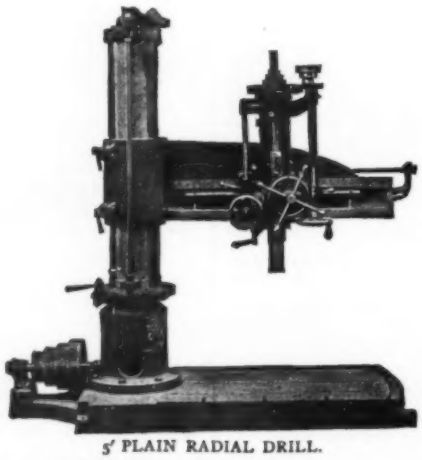

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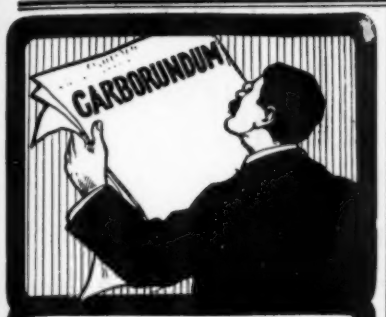

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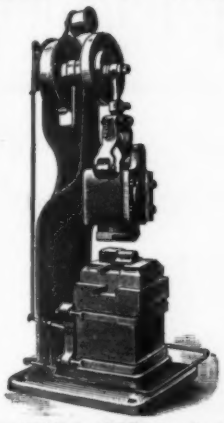

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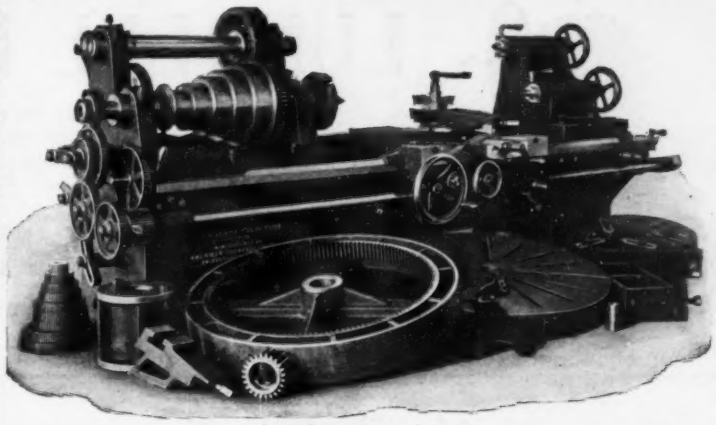

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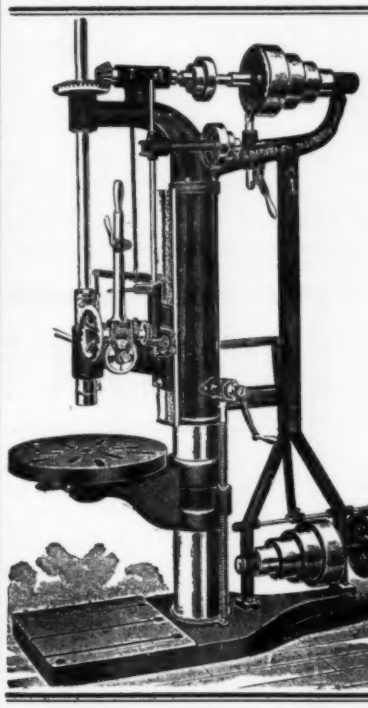

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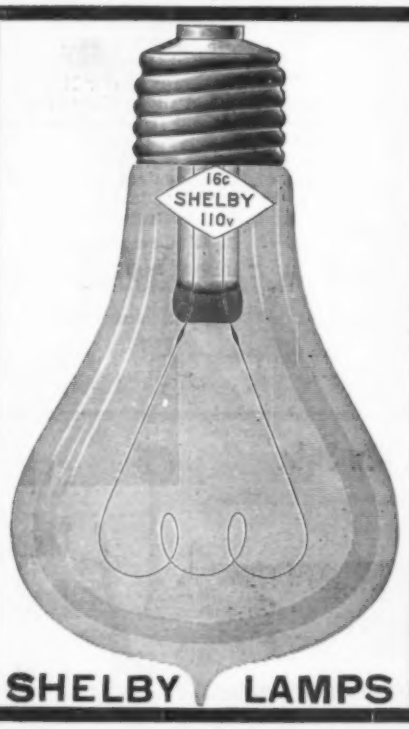

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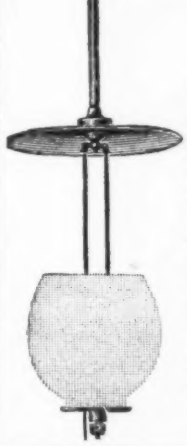

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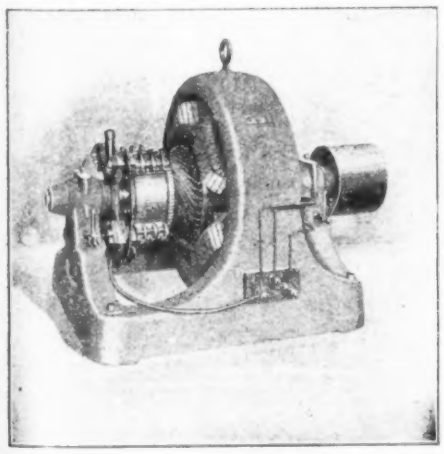

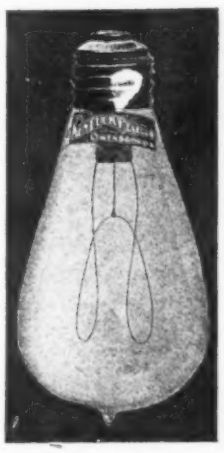

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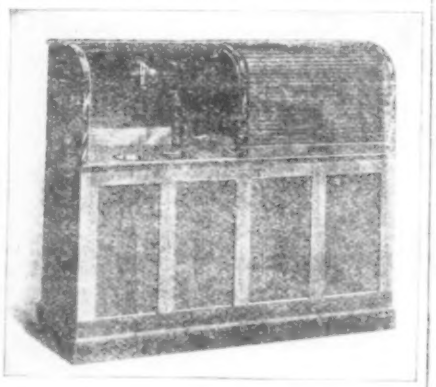

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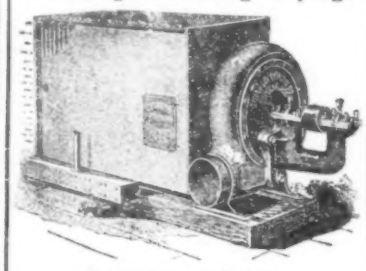

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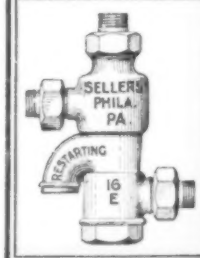

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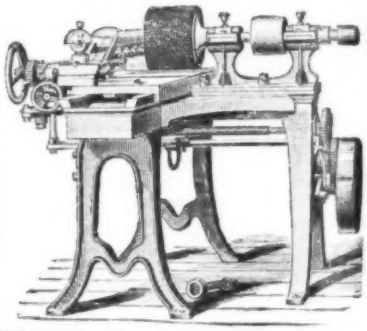

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